COUNTWAY LIBRARY
HC 4DAZ 5-



BOSTON
MEDICAL LIBRARY
8 THE FENWAY

WASHINGTON MEDICAL ANNALS

(BIMONTHLY)

JOURNAL OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Vol. X, 1911–12



INCLUDING A MEDICAL MISCELLANY

BERESFORD, PRINTER, 605 F STREET, N. W.
CITY OF WASHINGTON

BOSTON MEDICAL
MAR - 4 1915
LIBRARY

CATALOGUED
MAR -4 1915
J. F. B.

INDEX.

PAGE.

Abdominal Caesarean section 393
Acker, G. N. 395
Acute anterior poliomyelitis in the District of Columbia 81
hypertrophic pyloric stenosis of infants 280
Adams, S. S. 106, 161, 217, 265
Amalgamation of Medical Society and Medical Association of District of Columbia 198, 212, 213, 219, 220, 278
Amendment to constitution of Medical Society 21, 33, 199, 220
American Medical Association 224, 278, 281, 391
Anatomical illustration 213
Anderson, J. F. 385
Anthropological Society of Washington 213
Army Medical Museum, specimens of malformation in 72
Associate members of Medical Association of District of Columbia 281, 391, 393, 394

Balloch, E. A. 11, 59, 139, 268
Baker, Frank 273, 393, 394
Barber, R. T. J. 391
Barnes, F. M. 163
Barton, W. M. 33, 309
Battle, L. J. 180
Benzidine test for occult blood in the stool 271
Birds, hypertrophied ova of 324
Blackburn, I. W. 12, 35
Bogan, J. B. 168
Borden, W. C. 189
Borderland between internal medicine and psychiatry 191
Bovée, J. W. 1, 179
Bowers, J. E. 391
Brooks, J. L. 391
Butler, W. K. 140

Callan, C. V. N. 280
Cardiac irregularity 394
Carr, W. B. 107
W. P. 19, 49, 59, 71, 139, 142, 177, 229, 328, 371
Cases illustrating rational treatment of hysteria without minute psychoanalysis 331
Cases reported to the Society:
Aberrant axillary mammae 392
Abortion 169
Acute appendicitis 168
Amputation, hip-joint 218
Anemia from toxemia of pregnancy 375
Appendix, cyst of 68
Broad ligament, cyst of 213
Cyst of appendix 68
broad ligament 213
Dermoid cyst 108
Duodenum, perforating ulcer 36
Foreign body in oesophagus 272, 274
Hemiplegia and aphasia 163

Cases reported to the Society, continued:
Hip-joint, amputation 218
Hysteria 331
Ileum, strangulation by loop of appendix 36
Intestine, sarcoma of 35
Keloid 279
Kidney, lipoma of 216
Male breast, tumor of 250
Mammae, aberrant axillary 392
Oesophagus, foreign body in 272, 274
Pancreatitis, acute; operation and recovery 137
Pellagra 251
Placenta, premature separation of 70
Placenta previa 144
Pus tubes 107
Sebaceous cyst of abdominal wall 215
Suppurating sebaceous cyst 215
Syringomyelia 280
Tic de salaam 37, 105
Tumor of male breast 250
mediastinum 282
Censors, Board of 34
Chappell, J. W 160
Charter of Medical Society 163, 213, 392
Children's Hospital 286
Chronic constipation; Lane operation 266
Claytor, T. A 36, 53, 254, 394
Cohnheim, Paul 105
Committees:
Acute anterior poliomyelitis 81
Audit of treasurer's accounts 105
By-laws 279, 281, 297, 391
Censors 279
Charter of Medical Society 392
Circulars of inebriate hospital 218
Dinner to Dr. A. F. A. King 33, 34
Directory for nurses 35
Editing transactions 34, 35, 395
Essays 34
Executive 33, 34, 108, 212, 215, 221, 393, 394
History of the Society 35, 391
Joint committee on amalgamation of Medical Society and Medical Association, District of Columbia 198, 212, 213, 219
Meeting place 219
Microscopy 35
Permanent home 168, 211, 395
Program 278
Publication 279, 280, 394
Public health 34
Public instruction in medical matters 275, 279, 280, 396
Wiley resolutions 278, 279
Constas, John 78
Constitution, proposed amendment to 21, 33, 199, 220, 391
Cook, G. Wythe 395
Cutaneous lesions associated with the leukemias 121

Dabney, Virginius 325, 330
Danforth, R. F 394
Deale, H. B 33

Deaths:
Blackburn, I. W. 171
Callan, C. V. N. 107, 280
Fitch, A. C. 197, 212
Hunt, P. C. 29
Kerr, James. 31
Machinek, C. H. 281
Medford, H. S. 396
Miller, Wm. L. 30
Potter, W. W. 111
Rice, G. L. 396
Robbins, H. A. 385
Stout, A. M. 171
Wyman, Walter. 386
Dementia precox and alcoholism. 163
training in. 163
De Meritt, J. H. 394
Development of anatomical illustration. 213
Differential diagnosis between ocular and accessory sinus headache. 239
Diseases and injuries of precolumbian peoples of America. 213
Dynan, N. J. 163

Ear, nose and throat, diseases of. 325
Editorial. 39, 109, 170, 221, 282, 395
Eye, diseases of and pregnancy. 140

Fatal anemia from toxemia of pregnancy. Report of a case treated by direct blood transfusion. 375
Fibroid tumors of uterus complicating pregnancy, labor and puerperium. 45
Fitch, A. C. 32, 197, 212
Folkmar, E. C. 396
Foster, R. A. 394
Fractures, operative treatment of. 218
Franzoni, C. W. 33, 163, 394
Fry, H. D. 148, 178, 385
Samuel. 32
Fuller, H. G. 74

Garrison, F. H. 391
Georgetown School of Medicine. 286
University Hospital. 286
George Washington Memorial. 169
Glyco-thymolin. 40
Goodman, W. R. 394
Grove, W. B. 163
Gwynn, W. C. 54
Gynecology in 1910. 1

Hagner, F. R. 33, 74, 80, 163, 179, 181, 188, 238, 265, 329, 394
Harvey, H. M. 394
Hazen, H. H. 76, 121, 168, 181, 190
Headache, ocular and accessory sinus. 239
Healing forces of Nature in disease. 359
Heitmuller, G. H. 34, 142, 160, 167
Hemler, W. F. 269
Henning, Carl. 239, 245
Hickling, D. P. 15, 20, 136, 169, 197, 245
Historical synopsis of the development of hypodermic medication. 346

History of Medical Society 393
Hooe, A. B 178, 212, 393
Hough, W. H 90
Hrdlicka, Ales 213
Hunt, P. C 29
Hypodermic medication 346

Ileus 212
Infection of gunshot wounds 165
Influence of pregnancy on diseases of eye 140
Ingersoll, R. S 168
Internal medicine and psychiatry 191
review of 61
Iodine as an antiseptic with special reference to sterilization of the skin 175

Jack, W. A., Jr 56, 60, 178, 216, 239, 270
Jacobi, A 276, 278, 281, 393
Johnson, J. Taber 47
Johnston, G. F 394
Joint meeting of Medical and Anthropological Societies 213
Joint meeting of Medical Society and Medical Association of the District of Columbia 220

Karpeles, S. R 251
Kebler, Lyman 34, 79
Kent, G. H 163
Kerr, H. H 137, 139, 168
James 31
King, A. F. A 32, 34, 55, 71, 72, 139, 143, 164, 166, 216
E. F 190
Kinyoun, J. J 55, 165
Kober, G. M 11, 34, 165, 179, 249, 265

Lafora, G. R 86, 90
LaGarde, L. A 165, 166, 180
Lamb, D. S 12, 35, 36, 72, 73, 213, 217, 250, 274, 324
I. H 11, 358
Lane operation for chronic constipation 266
Latimer, G. W 279
Lee, T. S 68, 249
Leech, D. O 33, 279
Frank 282, 395
Lemon, H. T. A 33, 394
Leukemias 121
Lochboehler, G. J 79, 160
Love, A. G 33
Lowe, T. F 78, 180

McKimmie, O. A. M 328
McLaughlin, T. N 108, 395
W. F 391
McLean, A. R 163
Macatee, H. C 33, 149, 162, 265, 394
Machinek, C. H 281
Mackall, Louis 33, 71, 106, 395
Magee, M. D 79
Magruder, E. P 218

Malformations and monstrosities in the Army Medical Museum..... 72
Mallory, W. J.....272, 274
Manning, W. J..... 168
Martin, T. C.....38, 106
Mayer, E. E.....123, 136
Medford, H. S..... 396
Medical Association District Columbia, relations of.....33, 391, 392
Department, G. W. University..... 400
education and quackery..... 208
Meetings of the Society..... 33
Members by invitation..... 33
election of..... 391
Milk stations as centers of education, in an attempt to reduce infant mortality 217
Miller, G. B.....49, 139, 216
W. L..... 30
Mitchell, J. F..... 280
Moran, J. F.....33, 38, 45, 49, 143, 148
Morgan, E. L.....33, 161, 264, 371
J. D.....11, 79, 122
Mulcahy, D. D.....76, 105
Muncaster, S. B..... 142
Mundell, J. J..... 144
Murphy, J. A..... 32

Neate, J. S..... 165
Need of neurological training in psycho-therapeutic practice..... 131
Neill, T. E..... 178
Nichols, H. J..... 75
J. B.....21, 33, 73, 139, 271, 329, 358, 384, 394

Officers and members, list of..... 409
election of..... 394
Ong, H. A..... 217
Operative treament of fracture..... 218
Ova of birds, hypertrophied..... 324
Owen, W. O.....274, 368

Pamphlets received.....42, 112, 172, 227
Pancreatitis, acute..... 137
Pellagra 251
Permanent home for the Society.....166, 168, 211, 389
Personal notes.....110, 111, 171, 222, 292, 406
Pfender, C. A..... 346
Pole, S. B..... 168
Poliomyelitis, acute anterior..... 81
Polkinhorn, H. A.....79, 120
Pool, B. G..... 274
Poole, T. A.....168, 218
Potter, W. W..... 111
Potts Disease, diagnosis, treatment..... 392
Precolumbian peoples, diseases of..... 213
Pregnancy and diseases of the eye..... 140
Premature separation of placenta..... 70
Presidential address..... 309
Proceedings of the Medical Society.....32, 105, 163, 211, 278, 391
Progress of gynecology in 1910..... 1
Prophylaxis in the military service; typhoid and venereal..... 254
Psychiatry and internal medicine..... 191

Psychopathic wards of Washington Asylum Hospital.....169, 245
Psychotherapeutic practice..... 131
Psychotherapy and its limitations..... 123
Publications of Washington physicians.....171, 172, 225, 287, 404
Pupillary anomalies in chronic alcoholism..... 163
Pyloric stenosis in infants..... 280

Quackery and medical education..... 208

Ramsburgh, J. H.....55, 178, 189
Randolph, B. M.....35, 36, 179, 330
Reichelderfer, L. H.....238, 254, 266
Report of three cases of placenta previa..... 144
Results of treatment at Starmont (Tuberculosis) Sanatorium..... 50
Review of books.....41, 113, 223
internal medicine..... 61
otology 115
in sugery.....56, 229
Rhoades, T. L..... 33
Rice, G. L..... 396
Richardson, C. W.....163, 328, 395
Robbins, H. A.....164, 385
Roy, P. S.....34, 61, 68, 196, 219, 330, 370, 384
Ruble, W. A..... 281
Russell, F. F..... 262

Salvarsan apparatus..... 212
report of 22 cases treated with..... 74
suspensions in oil..... 181
Savage, L. S..... 274
School laggards; some comments on the local situation..... 149
Sections of Medical Society..... 392
Sessford, J. S. F..... 394
Shands, A. R.....73, 218, 392
Shipp, E. N..... 218
Shute, D. K.....16, 140, 143, 395
606 .....see Salvarsan.
Simpson, J. C..... 189
Sisco, H. W..... 391
Skin; sterilization of..... 175
Skinner, J. O..... 168
Smith, L. L..... 163
T. C.....33, 214, 219, 274, 394
Snyder, A. A..... 180
Social evil..... 393
Societies, other medical:
Clinical Society of Washington.....285, 397
Clinico-pathological Society..... 398
Galen Society.....40, 109, 170, 222, 286, 398
George Washington University Medical Society..... 284
Hippocrates Society.....39, 109, 170, 222, 284, 397
Medical Society of Northern Virginia and District of Columbia.... 399
History Club.....39, 109, 170, 222, 283, 396
Prince George County Medical Society..... 279
Society of Ophthalmologists and Otologists, Washington.....32, 40, 109, 170, 222, 281, 284, 397
Women's Medical Society.....285, 398
Sothoron, Elmer..... 40
Spear, Raymond.....165, 181

Sprigg, W. M.....139, 142, 168, 169, 394
Staples, A. H.....189
Starmont Sanatorium.....50
Stavely, A. L.....69, 70, 72, 107
Sternberg, G. M.....50, 56
Stone, I. S.....10, 11, 46, 59, 60, 69, 71, 175, 213, 216, 269
Strickler, M. B.....164
Sullivan, R. S.....168
Surgery, review of.....56, 229
Suspensions of salvarsan in oil.....181
Syme, W. H.....80
Symposium on intracranial tumors.....12

Taylor, L. H.....269
Terry, P. R.....281
Test for occult blood in stool.....271
Thomas, J. D.....53, 68, 280, 281, 395
Thomason, H. D.....212
Thomson, L. B.....391
Tuberculosis.....50
Tumors, intracranial.....12
Tumors of male breast.....250
Typhoid prophylaxis.....254

Upham, W. C.....394
Uterus, fibroid tumors.....45

Vaccine therapy in diseases of the ear, nose and throat.....325
Van Renssalaer, John.....394
Vaughan, G. T.....18, 37, 41, 60, 68, 69, 266, 270
Venereal prophylaxis.....254
Verbrycke, J. R., Jr.....271, 272

Wall, J. S.....33
Walsh, Ralph.....111, 213
Washington Medical Annals.....164
Wasserman reaction, instrument.....105
Watson, C. L.....168
J. A.....168
Wellington, J. R.....16, 269, 394
Wells, W. E.....33, 244, 272, 275
Werber, Gustavus.....350, 372
White, W. A.....135, 191, 196
Wiley, H. W.....277, 281
Wilkinson, Oscar.....115, 121, 142
W. W.....375, 385
Williams, T. A.....15, 19, 35, 37, 38, 60, 105, 120, 136, 196, 208, 212, 218, 270, 280, 331, 371.
Willson, Prentiss.....142
Woman's Clinic.....402
Woodman, F. J.....394
Woodward, W. C.....160, 263
Wyman, Walter.....386

Vol. X. MARCH, 1911. No. 1.

BOSTON MEDICAL
MAR - 4 1915
LIBRARY

WASHINGTON MEDICAL ANNALS

THE PROGRESS OF GYNECOLOGY IN 1910.*

By J. WESLEY BOVÉE, M. D.,

Washington, D. C.

Most of the great problems of gynecology having been solved previously, 1910 has no surprising achievements to chronicle in that special field of medicine; and yet the pioneer work is not finished. Even if such general diseases as cancer and tuberculosis are considered, we find special interest is at once apparent should these diseases primarily attack the female generative organs. The plan of attack is different in the treatment of such diseases in special fields although specific general treatment may in the future be found effectual.

Carcinoma.—Levin (*Am. J. Obst.*, 1910, LXII, 201) has contributed a very interesting paper on cancer of the uterus based upon a study of 613 cases of the disease in the foremost hospitals of New York. He first divides cancer into two large classes, one that occurs in regions (skin, extremities, mouth, etc.) in which the influence of an external irritant is very apparent. The other, in which such influence is not apparent, consists mainly of the parenchymatous organs. Here the constitutional reactivity seems to be the most important causative factor and heredity most marked. Regarding the evidence of the influence of constitutional reactivity Levin says "The experimental research has so far only indicated how to search for this primary cause. It has proven that any normal cell can be transformed into a malignant cancer cell by the aid of an external irritant, and, further, that a cancer cell may proliferate and retain its malignancy when introduced into one host and become innocuous and cease to proliferate in another host. Consequently the formation of a cancer is the interaction between a certain external irritant and the constitutional reactivity of the individual." Levin does not admit that normal processes, such as menstruation and childbearing, have any local etiological influence. He believes we should continue to study

* Read before the Medical Society, January 11, 1911.

the influences of civilized life upon human tissue as compared to absence of such cause in the savage.

Primary cancer of the Fallopian tube was treated very fully in the January number of *The Journal of Obstetrics and Gynecology of The British Empire*. Doran, Herbert Spencer, Tate and Legg reported carefully studied cases and commented at length on the subject. Doran tabulated 38 cases. In 100 cases he collected, the youngest victim was twenty-seven years. Of the 38 tabulated but two were under thirty years, and while 10 were between forty-five and fifty, 20 of them were older. The disease rarely occurs before the menopause, but is most common at or shortly after that period of life. Of the 27 in which pregnancy is mentioned 8 were sterile. Menorrhagia and vaginal discharge with pain were the most constant symptoms. Free, watery vaginal discharge was a marked symptom in over 27 per cent. In 34 a swelling of some kind was noted, ranging from a distinct resistance in a vaginal fornix to an abdominal tumor, but uterine fibroids and ovarian cysts, exclusive of tubo-ovarian cysts, were each present in 4 cases. In two, ascites was noted. Doran claims that in marked contrast to benign papilloma of this structure, the fimbriated end closes very early. In twelve the disease was bilateral. Early extirpation of uterus and appendages is advised. Glendining records 2 cases of carcinoma of the tube and ovary secondary to cancer of the stomach. He believes from a study of these cases that cancer cells floating in the peritoneal fluid are swept into the lumen of the Fallopian tube, and there, coming in contact with the lining, pass through the columnar epithelium to enter the lymphatic spaces of the subepithelial and muscular tissues, and so pass into the mesosalpinx. In this connection I will refer to the paper of Palmer (*Surg., Gyn. and Obst.*, 1910, X, 154) on pelvic transplantation metastasis as a means of recognition of hopeless abdominal carcinoma. After a careful study he concluded that, 1, rectal examination is necessary in all abdominal tumors; 2, of 435 consecutive cases of cancer in the upper abdomen 6.5 per cent. showed pelvic transplantation deposits as the earliest clinical sign of inoperability; over 7 per cent. of stomach cancer had this sign; 3, fifty-five per cent. more cases were shown to be inoperable through a thorough rectal examination for pelvic metastasis than because of the presence of supraclavicular gland metastasis, and 4, pelvic metastasis warrants a most unfavorable prognosis as regards life expectancy. Oliguria and chronic uremia in uterine cancer were studied by Offeigeld (*Arch. f. Gynak.*, 1910, XCI, 183), who, influenced by the belief that the kidneys possess an internal secretion, hoped to supply this substance and thus relieve the symptoms of chronic uremia by the employment of a renal extract from beef kidneys. His efforts were unsuccessful, and he concludes that while animal renal extracts are valueless, extracts from normal human kidneys

may be useful. In a paper read before the Southern Surgical and Gynecological Association four years ago I made a plea for the removal of the cervix when the uterine body is removed, using as one reason the subsequent development of cancer in the cervical stump. During the past year this occurrence has received the attention of Chaput, Potherat, Temoin, Tuffier and Hinterstoisser, who report cases and sound a warning note. An advance would be noted if surgeons would make a careful macroscopical examination of the uterine body and its tumors directly after its separation from the cervix and, if found at all suspicious in appearance, remove the cervix at once. In fact, a better technique in abdominal partial hysterectomy for tumors should be cultivated by the average surgeon.

Not much improvement in the treatment of pelvic cancer has been recorded during the year. We find Werder employing the cautery and curette in conditions in which formerly he practiced an extended exsection of the uterus and appendages with their contiguous structures. The current magazines teem with reports of Wertheim operations, and efforts are made by many to reduce the time and danger of this procedure without lessening the scope of the operation. Reuben Peterson has strongly advocated the extended exsection, giving a report of his work in detail, and again, in December, describing to the Southern Surgical and Gynecological Association some further elaboration of technique regarding liberating ureters from adjacent tissue and plan of severing the vagina.

Following the work of Liepmann reported in 1907 and 1908, on the results of bacteriological examinations made at radical operations for cancer of the uterus, Hannes (*Ztschr. f. Geb. u. Gyn.,* 1910, LXVI, 150) has investigated the subject and reports a reduction of mortality from 30 to 40 per cent. to 21 per cent. by the employment of vaginal drainage. In 20 cases streptococci were found in the parametrium in 5, 4 of which died of infection. Cultures were made from the carcinoma in 16 cases, none were sterile and streptococci found in 7 of them. No drainage was used in this series. In another series of 10 cases using vaginal and abdominal drainage streptococci were in the parametrium 4 times (twice in the glands). He claims his mortality from infection has fallen from 20 per cent. in vaginal or no drainage to 7.5 per cent. in combined vaginal and abdominal drainage.

Hoehns, like von Rosthorn and Franz, believes that in properly selected cases recurrence of cancer should be removed by operation. Should it be of a diffuse infiltrating type operative treatment will be useless, but he believes excision is advisable when the form is more that of a circumscribed nodule, especially if it be in the region of the scar of the former operation. He also advises routine postoperative supervision of uterine cancer patients.

Optimism regarding the ultimate result of treatment of cancer

of the uterus may be neutralized by Seman's paper (*Med. Klinik,* 1910, VI, 1495) in which he reports recurrence in carefully observed cases five to ten years after operation. This author recommends careful palpation and curettage of the endometrium in all abdominal myomectomies so that whenever suspicion of malignancy of the endometrium exists a radical operation may at once be performed.

Exstrophy of the bladder has been treated, apparently successfully, by a surgical procedure described (*Zentralb. f. Chir.* 1910, XXXVII, 1073) and executed by Makkas and which consists of converting the isolated cecum into a bladder and the vermiform appendix into a urethra. The first step of the operation was done May 10, 1910, on a girl of twelve years who had an ectopic bladder and vaginal atresia, an anus situated more anteriorly than usual and a very weak sphincter ani. He made an incision 12 cm. in length through the right rectus muscle, isolated the cecum completely and closed the ends of the divided bowel. The cecum was now easily displaced to the median line. The ileum was divided and both ends closed, and then by lateral anastomosis united to the transverse colon. The appendix, 7 c. m. in length, was passed through a small opening in the abdominal wall just below the operation wound. The distal end was removed and its mucosa sutured to the skin. The large incision was then closed by three tiers of sutures. After the tenth day the cecum was irrigated by means of a Nelaton catheter, introduced through the appendix, mucus always being thus removed.

The second step was executed June 18 (39 days after the first one) and was as follows: after making an incision around the ectopic bladder that structure was separated from its bed, the ureters and a considerable patch of the surrounding bladder wall being isolated and carried through a midline, abdominal incision to be sutured into the segregated cecum which was there adherent. The abdominal wound was closed and a Nelaton catheter kept in the new urethra and bladder. No complications. The urine flowed freely but the reservoir was irrigated several times daily. On the 8th day a stopper was put into the catheter and the reservoir emptied every two or three hours. The capacity increased from 100 cc. to 325 cc. A few weeks after the completion of the operation the urine was allowed to escape every three or four hours during the day but not during the night. While the quantity was 1000 to 1200 cc. daily the catheter could not be dispensed with. No albumen was to be found in the urine but mucus was freely mixed with it.

The treatment of advanced ectopic pregnancy with regard to life of the child is portrayed in papers published by Peterson (*Trans. So. Surg. and Gyn. Assoc.*) and myself (*Am. J. Obst.*) which contend that the danger to the mother during the latter months of ectopic pregnancy with a living fetus has been greatly

overestimated and that fetal deformities occur in but about eleven per cent. of cases. Consequently, to allow the pregnancy to progress sufficiently near to full term to afford the greatest viability to the fetus, and then to rescue it by operation, is the most approved plan. Removal of the placenta at the time of operation is advised.

Findley reports a case of *bilateral tubal pregnancy* that ruptured synchronously on both sides. He has found eight authentic cases of bilateral tubal pregnancy in literature and twenty others that are open to doubt. T. G. Wilson has reported an instance of this character in his experience. These two papers may be forerunners of a new theory of the origin of twin pregnancy.

The creation of an artificial vagina was the subject of a paper read at the 1910 meeting of The Southern Surgical and Gynecological Association, by Ferguson. Baldwin's plan of making the vagina from an isolated portion of the small intestines was discussed and censured and Noble's plan again described by him. Ferguson's plan, as adapted to three cases, was to make a long and wide anterior flap, and after lifting it up make the opening in the rectovesical septum for the vagina. Two latero-posterior flaps were now made with the free ends upward. The bladder is dragged down through the new opening and the large anterior flap sutured in two places to it. The rectum is now pulled outward through the new opening and each of the other two flaps is sutured to it by two stitches. Afterward the employment of plugs is necessary for varying periods. The Noble and Ferguson methods are very much superior to older plans employed.

The influence of the Trendelenburg position in surgical operations was a subject of special study by myself during 1909-10 and resulted in demonstrating that not all its advantages were without their offset. It was found that with ether as the anesthetic used, the decrease in quantity of urine was 58 per cent. and with chloroform the reduction in quantity amounted to 93 per cent. These figures are regarded as being very surprising. They refer clearly to kidney elimination.

The treatment of retroversio-flexio-uteri has interested Adler (*Monatssch. f. Geb. u. Gyn.*, 1910, XXXII, 228), who has recently devised an operation for the purpose when the uterus is movable. It consists essentially of vaginal fixation of the round ligaments in the region of the urethra. He has not published it. When the organ is adherent in the virgin or complicated by adnexal disease he prefers a modification of the Gilliam operation.

Heaney of Chicago has written quite at length on the subject of *periodic intermenstrual pain* (*Surg., Gyn. and Obst.*, 1910, XI, 361), which he finds is most common during the age of greatest sexual activity, twenty-five to thirty-five years, and in married women. It occurs midway between the menstrual periods and is absent in amenorrhea. It usually begins in one side of the abdo-

men, more frequently the left. The onset is spasmodic with intervals of complete cessation. Later it extends over the whole abdomen and becomes more or less continuous. It usually lasts two or three days but may continue until menstruation begins and then entirely cease. It sometimes is accompanied by a thin, watery mucoid discharge or a scanty bleeding.

All cases operated upon showed some pathological condition of the uterus or adnexa, or both. It is attributed to insufficient or abortive attempt at menstruation, there being degeneration or sclerosis of the uterus and ovaries.

The repair of inaccessible vesico-vaginal fistulæ following hysterectomy is thoroughly discussed by G. G. Ward, Jr. (*Surg., Gyn. and Obst.,* 1910, XI, 22). He says that such a fistula is usually small, situated in the vault of an atrophic and contracted vagina, and embedded in the scar tissue which occupies the former position of the cervix, thus rendering operation for its cure extremely difficult, owing to its inaccessibility. The steps essential to cure by the method which he employs are: 1. The differentiation from a ureteral fistula by distension of the bladder with an aniline solution; 2. Deep paravaginal incisions (Schuchhardt); 3. A longitudinal incision of the anterior vaginal wall from the urethra to the vaginal vault through the fistula and extending into the posterior vaginal wall, and a lateral incision extending the full width of the vaginal vault; 4. Thorough separation of the base of the bladder from the entire vagina and vaginal vault; 5. Evisceration of the bladder into the vagina by means of a sound passed through the urethra; 6. Closure of the opening in the bladder separately from the vaginal incision. Suprapubic methods are to be employed only in the presence of failure by the vaginal route, since the latter is less dangerous and offers good chances for cure.

That this is a troublesome class of cases will be recognized by all who have attempted to relieve them by surgical procedures and his paper is a timely one as well as practical and scientific.

Goetze has studied 105 cases of *myomata and pregnancy* and concludes (*Ztschr. f. Geb. u. Gyn.,* 1910, LXVI, 340) that small subserous myomata have no influence upon conception but with increasing size, the chances of conception are lessened, although not entirely excluded even by very large tumors. The prognosis varies with the site of the tumor, being most unfavorable in the submucous variety, especially when associated with extensive alterations in the endometrium. Interstitial myomas lessen the likelihood of conception. Tumors of the cervix seem to offer greater obstacles than those of the corpus. If pregnancy does take place, myomas increase the danger of abortion. In the absence of other lesions which are conducive to sterility, myomectomy undoubtedly increases the chances of conception, the prognosis being more favorable the less radical the operation required,

as in cervical and subserous myomas, the less the alterations in the endometrium, and the earlier the diagnosis is made. If myomectomy is not possible, an interstitial myoma of some size in a woman of thirty years practically excludes any hope of conception.

Edward Reynolds has published a paper (*Boston Med. and Surg. J.*, 1910, CLXIII, 113) on the interesting subject, *gynecological operations on neurasthenics,* commenting on the advantages, disadvantages and selection of cases. He attempts to define neurasthenia, which is typical of his courage. He particularly emphasizes the necessity for carefully studying chronologically the pelvic lesion and the symptomatology. In the absence of a reasonably close chronological sequence between general and local symptoms, local treatment should be withheld and general measures employed. When neurasthenia has developed secondary to a well-defined lesion, and if such a lesion is curable, operation is recommended. Such an operation should aim to repair rather than to remove the diseased organ, especially in women who have not reached the menopause.

Genital prolapse has been studied by R. L. Dickinson (*Am. J. Obst.*, 1910, LXII, 17), and he has given the deductions drawn from his studies along the line of its operative corrections, having cleavage lines and sliding segments as the viewpoint. He summarizes as follows: From the point of view either of pathological anatomy or surgery, frozen sections show the importance of recognizing certain cleavage planes in the pelvic diaphragm, and intervening segments that slide. The cleavage runs (1) post pubic, close to the bones; (2) in the urethro-vaginal septum; (3) in the rectovaginal septum, and (4) along the anorectal canal. If the urethral segment falls any considerable distance, only ventral fixation at the rear or top of the pubes will hold the upper urethra and anterior bladder wall. The second segment (vagina, bladder-base, cervix) is the common hernial mass. A convenient nomenclature would be intravaginal cystocele; extravaginal cystocele, protruding beyond the hymen on straining, and complete extrusion, bladder, cervix, uterus, one and all. For the worst cases Dickinson employs ventral fixation of the bladder, whether vaginal hysterectomy is done or not. The recto-anal segment, when very badly prolapsed, particularly in the presence of protrusion of the uterorectal pouch, may call for sigmoid fixation; and the wide-open long outlet of the pelvis may present no tissues out of which a diaphragm can be built, so that flaps from the buttocks may be required.

The treatment of the subject in this manner is not only unique but very instructive.

The reflex relations existing between the uterus and other organs of the body, especially the breasts, gastro-intestinal canal, nose and bladder, have been commonly recognized by clinicians,

based purely upon clinical observation or the acceptance of empirical facts as handed down from generation to generation. Therefore but little effort has been made to prove by actual experimentation the truth or fallacy of these observations, or to determine the pathways by which such reflexes are carried. In a most interesting and instructive article, E. Kehrer (*Archiv. für. Gynak.*, 1910, XC, 169) reports in full the results of his painstaking and difficult experiments concerning this important subject. Following a concise description of the general technique employed, he details his methods of procedure upon the different organs and summarizes freely his conclusions, only a few of which will be mentioned here. The most intense reflex influences upon the uterine movements were produced by irritation of the gastro-intestinal canal, especially of the colon. Stimulation of peristalsis by mechanical or chemical stimuli was accompanied by increased uterine contraction. Inhibition of peristalsis as produced by artificial distension of the stomach and segments of intestine produced likewise an inhibition of the uterine movements, a stage of rest with muscular relaxation. Division of the vagus or pelvic nerves produces a slight transitory inhibition of the uterine contractions; division of the sympathetics is accompanied by intense excitation. The afferent pathway for both inhibitory and stimulating impulses from the stomach and ileum is through the splanchnics; from the colon through the hypogastrics. The efferent section of the reflex arc is through both splanchnics and hypogastrics. The reflex center for the entero-uterine connection lies in the prevertebral ganglia. Dilatation of the bladder and ureters leads to reflex inhibition, contraction of the bladder to reflex stimulation of the uterine musculature. Even after complete division of the hypogastric and pelvic nerves the vesico-uterine reflex persists, showing the presence of an independent reflex mechanism. Kehrer was unable to determine definitely the paths of the reflex between the breasts and uterus.

During the year interest in *vaccine therapy* has not abated but the results obtained are not conducive to great optimism for the future success in it. The American Gynecological Society had a special committee studying the subject. That committee, composed of three leading obstetricians, J. Whitridge Williams, E. B. Cragin and F. S. Newell, reported at the meeting of the society in May, 1910.

They state that as the opsonic index is subject to great variations and is technically difficult, its practical value is doubtful. Immunization by vaccines is a well established preventive measure against typhoid fever, plague, cholera and dysentery and in local infections by the staphylococcus or tubercle bacillus it is valuable. With other infections its value is doubtful. In acute general infections it has failed. It is occasionally curative in chronic gonorrheal arthritis and urethritis. It is unreliable in

the vulvovaginitis of children. In infections of the urinary tract by the colon bacillus and in the pyelitis and pyelonephritis of pregnancy it is not superior to other forms of treatment. It has been found of slight value in some forms of endometritis after curettage.

Peterson, in writing on *gallstones during pregnancy and the puerperium,* states they are most common between the ages of twenty-five and thirty-five years and that pregnancy undoubtedly conduces to their formation. At about the fifth month of pregnancy when the uterus is approaching the level of the umbilicus and pressing the intestine against the liver the liver pain is noticed. In the puerperium the symptoms, chill, fever and jaundice, are usually manifested during the first seven days. Sixty per cent. of pregnant patients suffer more or less from jaundice. It occurs about one-sixth as often in the puerperium. The mortality of operation during pregnancy was 13.04 per cent., while during the puerperium furnished a rate of 11.01 per cent. In more than half the patients the gallstones were intracystic.

Operations upon the gallbladder do not appear to be more apt to interrupt pregnancy than do other abdominal operations. If the patient is in good condition operation should be delayed until the child is viable.

Polak (*Surg., Gyn. and Obst.,* 1910, XI, 49) read a paper at the meeting of the American Gynecological Society, entitled "When shall operation be done for puerperal septic infection," based upon a study of 200 cases. He concluded that operation must be determined by the merits of each individual case only; that so long as the patient is improving interference should not be made, and that care must always be exercised against rupturing the protective barriers which Nature establishes in these cases. Vineberg reported 6 cases in which he ligated the pelvic veins and performed hysterectomy in the treatment of puerperal septic infection. Montgomery also advocates operations under careful restrictions and always with a minimum of traumatism.

Following his paper read at the 1909 meeting of the American Gynecological Society on the employment of the abdominal route for operation on pelvic fascia in prolapse, Polk, at the meeting of 1910, reported several cases in which he had carried out this plan without evidence of failure in any of them. Being a procedure planned along logical lines, much may be expected from it in the treatment of the various prolapses of pelvic structures. Considerable interest has this year been manifested in the management of ovarian tumors complicating pregnancy. Marshall (*Jour. Obst. and Gyn. of Brit. Emp.*) has not only carefully studied the literature of the subject but reported 8 cases. Interest to the average physician is limited to the treatment. It may be said operation is indicated as early as possible. If first recognized during labor and that process can be finished it should be

permitted and the tumor removed during the next week. But if the tumor has ruptured or been incised to permit labor to be terminated, ovariotomy should usually be done during the next two days.

Several additional subjects have been well studied during the year 1910, but I think I have already severely taxed your attention and patience. Therefore I will not comment on them here.

It will be seen that the gynecological investigator and the obstetrician need not feel that because the large problems are solved nothing more is to be done. There will always be questions in medicine to be solved, and the worker need never be sorrowful because of a different opinion. Many important subjects are being earnestly studied, and that the year 1911 may mark the completion of them we may hope, and if we cannot a year hence glory in such result we will not lose hope.

Dr. I. S. Stone had enjoyed the admirable paper. He would offer the slight criticism that it could hardly be expected of members to discuss a paper of such wide scope without having had a previous opportunity to look it over and prepare remarks upon particular points.

With respect to the treatment of cancer of the uterus, it seemed to him that the advance has been very slight indeed since Byrne introduced the use of the galvano-cautery in this condition. The Wertheim operation has prolonged life after operation, for he has seen patients live three and five years after this operation whose life would not have been over one year had older methods been used. The day is yet far off when cancer of the uterus will be cured by operative methods; and the day will never arrive until women are taught to come early to competent physicians for accurate diagnosis in every case of pelvic ailment. It seemed to Dr. Stone amazing that Wertheim can get 60 per cent. of cures, when the best men in this country claim only about 15 per cent. It must be borne in mind that any statistics with respect to the results of operative treatment of cancer of the uterus must distinguish between cancer of the body and cancer of the cervix; they are as different as different diseases.

In the case of breast cancer, it now appears that patients are not safe after five years of non-recurrence; he knew of three, perhaps four, cases in which recurrence took place at this late period after amputation of the breast.

He had hoped to hear Dr. Bovée express his views upon the subject of the enteroptoses; it seemed to Dr. Stone that when gynecology can devise ways to cure this troublesome class of cases it will have accomplished much of its mission.

Preventive gynecology constitutes a field for pioneer endeavor in which much good work is being done; it is a field that in the past has been too much neglected.

Polk's operation for the relief of prolapsed bladder by the abdominal route was a notable announcement of the previous year; Dr. Stone had not had opportunity to employ the method, but the descriptions indicated a valuable addition to gynecologic resources.

Dr. Balloch said that Dr. Bovée's experiments to determine the rate of urinary output under anesthesia in the Trendelenburg position were of great interest, and inquired if the results had been checked by similar observations upon anesthetized patients in the supine position? He presumed that of course such observations had been made. Certainly they were necessary to a correct determination of the influence of position in anesthesia. He differed from Dr. Bovée's estimate of vaccine therapy; it seemed to him that this department of therapeutics has a very bright future. Vaughan, of Ann Arbor, has made some interesting experiments upon the treatment of certain inoperable neoplasms by the inoculation of autogenous vaccines made from the tumor itself. Dr. Balloch is trying this method upon a patient at Freedmen's Hospital. Notwithstanding what has been accomplished in the past, there is yet abundant opportunity for advance and improvement in gynecology as well as the more general branches of surgery.

Dr. J. Dudley Morgan was interested in the changed attitude with respect to ectopic pregnancies after the fifth month; it has heretofore been taught that ectopic pregnancies ought to be operated upon in all circumstances as soon as recognized. He had had very encouraging experiences in the use of gonococcus vaccines in gonorrhoeal arthritis.

Dr. I. S. Stone had some knowledge of the use of vaccine therapy at Garfield Hospital and also at Columbia, and it seemed to him desirable that the results of the work in this line should be presented to the Society.

Dr. Isabel Haslup Lamb had had some excellent results from the use of vaccines in gonorrheal arthritis, and wished she might hear a recital of the experiences of others.

Dr. Kober spoke of a patient at the Home for Incurables who had been unable to walk for ten years; the use of vaccines by the resident physician had recently restored the power of locomotion.

Dr. Bovee had not supposed when he prepared the paper that there would be any discussion. No one topic had been thoroughly presented and therefore none could be discussed extensively.

In the treatment of cancer of the uterus, the best general results when all cases of all kinds are taken into consideration will be obtained from the use of the galvano-cautery; but to apply it to all forms and at all times would be a great mistake. As Dr. Stone had said, we may expect to obtain 90 per cent. of cures in cancer of the body of the uterus by excision; now, no such re-

sults could be obtained by the use of galvano-cautery in this class of cases. In cancer of the cervix (and he had had much experience with this class of cases) when inoperable his preference is to employ thorough curettage and the galvano-cautery. But in early cases he would not think of using the galvano-cautery; extirpation is much better.

In answer to Dr. Balloch, he said that the results of the experiments to determine the amount of urinary output under anesthesia in the Trendelenburg position had been abundantly checked and compared with results obtained in the same way with the patient supine both before operation and afterwards.

Dr. Stone had referred with commendation to Polk's operation for prolapsed bladder; Dr. Bovée described the technic; and said that it seemed to be an interesting plan and seemed to him one worthy of favor.

SYMPOSIUM ON INTRACRANIAL TUMORS.*

Dr. D. S. Lamb demonstrated a number of specimens from the Army Medical Museum, and spoke briefly in regard to each of them. They comprised neuro-glioma of frontal lobe, gliomata of brain, cholesteatoma of frontal lobe, endotheliomata of cerebrum, cerebellum and pia mater, sarcomata, fibro-sarcoma and cysto-sarcoma of cerebellum, osteoma of pons, and cysts of cerebrum, frontal lobe and pineal body.

Dr. I. W. Blackburn, from the Government Hospital for the Insane, next demonstrated the following specimens from that institution:

1. Spindle-celled endothelial sarcoma of dura mater. Weight of tumor, 140 grammes—nearly five oz. avoirdupois. Prof. Keen's tumor, removed during life, weighed nearly one-half pound. Patient, negro, female, aged 36; dementia, blind, headache, sleepy, no paralysis; no Babinsky nor ankle clonus; epileptiform convulsions, double optic atrophy. While organic brain disease was suspected, the diagnosis of brain tumor was not made. 2. Spindle-celled endothelial sarcoma of dura mater, invading the left motor region. Patient white, female, aged 45; mental diagnosis, the paranoid form of dementia praecox. Patient gradually deteriorated. Spastic paralysis of right leg and arm, which several times improved but finally became more marked and permanent, and she became comatose. Operation was done; *no tumor found.* Patient died twenty-four days after operation. No headache, vomiting, vertigo, ataxia, and optic nerve disturbance was not noted. Weight of tumor 70 grammes,

* At the Medical Society, January 18, 1911.

situated in left motor region, pressing the central gyri and the Rolandic fissure backward. 3. Glioma affecting the left hemisphere, especially the white matter, and exercising pressure upon the internal capsule. Patient white, male, aged 46. No speech defect, no paralysis; had convulsive seizures, diagnosticated as epilepsy. Cortex of Broca's area not invaded; internal capsule pressed aside but not invaded. Patient died in convulsions. *History of injury.* 4. Tumor of pituitary body, without acromegaly. A mixed-celled sarcoma. Patient, female, negro, aged 46. Demented, no complaint of impairment of vision; seldom vomiting; died in a convulsion; had some frontal headache, became somnolent, and gradually passed into a deep stupor from which she could not be aroused. Tumor not diagnosed. 5. Spindle-celled endothelial sarcoma of dura mater. Patient white, male, aged 73; vision much impaired; demented; sense of smell abolished; no vomiting, pain in the head, convulsions, nor paralysis. Weight of tumor 60 grammes. Tumor not diagnosed, although some form of organic disease of brain was known to be present. 6. Glioma of the centrum ovale of right side invading the basal ganglia, etc. Patient white, male, aged 42; dementia, convulsions, hemiplegia of right side occurred about three months before death.

Dr. Blackburn then read the following paper on *Spindle-celled Endothelial Sarcoma of the Dura Mater.* The spindle-celled endothelial sarcoma, or, as it is commonly called, endothelioma of the dura, strictly speaking, is not a tumor of the brain, yet whenever it reaches any size it almost invariably penetrates the organ and acts as a foreign body, producing pressure, atrophy and destruction of tissue, and in this way acts as a true tumor of the brain. The relative frequency of these growths, the ease with which they may be removed when accessible, and their comparatively benign character, make such tumors peculiarly interesting to the surgeon. They are easily enucleated from the brain, they do not infiltrate the surrounding tissues, and when completely removed do not recur. Though not given the most prominent place as regards frequency they are in my experience by all odds the most common of intracranial growths, at least 60 per cent. of all tumors within the cranial cavity being of this general class. They grow rather slowly and, unfortunately for surgical interference, may reach considerable size, and penetrate the brain locally in some situations before their presence is manifested by symptoms; on the other hand, when situated so that important structures are invaded and in regions of the brain of known functions they act as a foreign body and produce local symptoms though the general symptomatology of brain tumors may be absent. Unfortunately quite a number of these growths originate from the dura mater in advance of the sella turcica over the body of the sphenoid bone and sphenoidal sinus, and are

therefore difficult of access and at the same time may reach considerable size and embed themselves deeply in the frontal lobes and the great longitudinal fissure before their presence is shown by the symptoms, though sooner or later both olfaction and sight will be affected and the general symptomatology may appear. They commonly arise from the dura or one of its extensions as small wart-like prominences intimately but not very firmly attached to a slightly roughened site, and thence grow until they may reach over three inches in diameter. When they reach a large size the dura beneath may be partly destroyed or incorporated with the growth and the inner table of the bone may be roughened and slightly elevated. The attachment to the dura is usually smaller than the general diameter of the tumor and the adhesions may be variable in firmness in the older growths. The brain is slowly penetrated; the pia is carried in advance of the tumor, and in older and larger growths it may be adherent and incorporated with the surface of the tumor, and the cortex and white substance in the vicinity may be softened and destroyed. In the brain tissue surrounding the growth, as in most brain tumors, there is always oedematous softening, which makes it difficult to keep the tumor in place during post-mortem study.

These growths do not infiltrate the brain tissue, though they have no distinct capsule, the surface being merely circumscribed by a condensed layer of tumor tissue. The surface is at times nodular, in other cases it is smooth and in general they tend to globular shape. They do harm by mechanically invading the brain and by producing local destructive pressure-atrophy of the cortex, as well as by the general brain symptoms induced. If accessible they offer the most favorable conditions for surgical interference, and when removed successfully there will be no return.

The exact histogenesis of these tumors has not been determined; they arise from the dura, however, and are commonly regarded as endothelioma. When we remember the extreme variety in tumors of this general designation it becomes necessary to give a more specific descriptive term. For this reason I have called them spindle-celled endothelial sarcoma; by the term sarcoma giving them the class designation of mesoblastic connective tissue growths to which I think they belong. Though composed mainly of spindle-shaped cells, by some they are regarded as developed primarily from the endothelium of the lymph spaces and lymph channels. This is not an unreasonable conclusion for certain tumors and portions of many, but it will not explain the derivation of all the cell elements. In general these growths are made up of masses of spindle cells arranged in sweeping bands and concentrically arranged cell spherules, separated by a stroma of richly cellular and vascular connective tissue and spindle cells. In the dense spindle-cell masses some-

times a few ill-formed blood channels are found. The cell-spindles are usually very slender, have elongated nuclei and are closely applied and apparently without intercellular substance. In some tumors there seems to be a transformation into fibrous tissue as in ordinary fibro-sarcoma. In some tumors of the class there is a marked tendency for the cells to arrange themselves in concentrically disposed cell-masses, and in some the central cells of such spherules still show a rounded form and endothelial characteristics. In other cases the cell spherules undergo hyaline degeneration and subsequent calcification. In some tumors of the same order the presence of these calcified spherules in great numbers has led to the designation "psammoma" or brain-sand-tumor.

I think careful examination of the developing parts of such growths will show that in the earliest stages the cells are endothelioid in character and that the later form is the spindle cell. It is probable that the concentrically arranged cell masses are the result of development from a central point, whether this be a small lymph vessel or whatnot, and that on account of this concentric growth the peripheral cells become attenuated and spindle-shaped.

The derivation of the hyaline and calcified spherules from the concentric cell masses is shown by transition forms, and by persistent nuclei in the degenerated globules.

Dr. T. A. Williams reported several cases.

Dr. Hickling said: The sermon to be preached tonight is the early recognition of those symptoms which so clearly indicate not only the presence but the location of the cerebral neoplasm. I do not refer to the general pressure symptoms so-called, namely, headache, nausea and vomiting, optic neuritis, vertigo, convulsions, and mental deterioration, for these symptoms do not localize, but on the contrary often obscure the previously existing localizing symptoms; these are general pressure symptoms and are always preceded by localizing symptoms which, although slight, and often overlooked by the general practitioner, are of the utmost importance, and to the specialist often show the way to cure by proper treatment.

The early localizing symptoms to be watched for are: first, the local (Jacksonian) convulsions; second, local paralysis of motion or weakness; third, localized loss of sensation; fourth, local affections of the nerves of special sense; fifth, mental losses, such as aphasia, loss of memory, power of concentration or will; these symptoms are of the utmost importance and are often erroneously explained as the result of a slight "stroke," and forgotten. The fact that neurasthenia and hysteria may be due to the presence of a cerebral tumor should not be overlooked; it should also be remembered that headache, vomiting and optic neuritis, which may indicate general cerebral pressure and may

also indicate a prompt surgical operation, may be due to chronic lead poisoning, Bright's disease, or a severe anemia.

The successful diagnosis of cerebral neoplasms depends upon the careful examination of the patient by a competent man as soon as any of the above-mentioned symptoms appear.

Dr. Shute approached the subject from the ophthalmological point of view and remarked upon the ease with which the diagnosis of intracranial tumor may at times be made by ocular examination. He would lay great stress upon the syndrome—optic neuritis, nausea and headache. He would caution that interstitial nephritis may occasion these same symptoms; but conversely, cerebral tumor may give the exact appearance of albuminuric retinitis. It is justifiable to make the diagnosis of brain tumor upon finding double choked disc, associated with nausea, vomiting and headache; but he cited a case in which these symptoms occurred and which the late Dr. Burnett and himself had agreed to be one of brain tumor and advocated operation. Operation was refused and the patient entirely recovered; the symptoms recurred, however, but after Dr. Shands had removed a small tuberculous cervical gland they disappeared and have never again returned. It is not always possible to obtain focalizing symptoms; and cases come to the oculist with choked disc, but with not only no focalizing symptoms, but no nausea or headache. Certain tumors occur which instead of causing choked disc give rise to optic atrophy; especially is this apt to occur in cases in which the tumor presses directly upon the chiasm. Dr. Shute did not consider hemianopsia a localizing symptom, because this may be caused by a lesion anywhere from the retina back to the cuneus.

Dr. Wellington read a paper on the *Surgical Treatment of Intracranial Growths,* in which he stated that by advances made during the last few years in the diagnosis and operative technic, the mortality of the surgical treatment had been reduced. Horsley, Cushing and others had been foremost in the work. A few years ago only about five per cent. of brain tumors were considered operable; now in probably one-half the cases surgery offers at least a hope of relief from pain, and prevention of blindness, and a fair percentage of cures.

It is usual in brain tumors to give at first a course of antisyphilitic treatment. This is proper unless the optic neuritis is advancing so rapidly that loss of sight is endangered by delay in operating. It is claimed that sometimes cerebral gummata are very resistant to potassium iodide, while at other times nonsyphilitic tumors are reduced in size or removed. Cushing says that "improvement in subjective symptoms alone is not a sufficient justification for the prolonged continuance of specific treatment; the matter must hinge entirely on whether there is at the same time a subsidence in the choked disc."

The chief contraindications to operative interference are total blindness and extensive paralysis or any other signs of involvement of important tracts.

Operative treatment is either palliative or radical. The former is intended to relieve the distressing headache, prevent blindness and prolong life. It is used in cases in which the tumor cannot be localized, or is inaccessible, or if accessible cannot be removed because of its size or the danger of hemorrhage, or involvement of vital structures; and as a preliminary to radical operation, by removing intracranial pressure. The palliative operation is known as decompression; a section of skull is removed with the underlying dura; the brain bulges through this opening and pressure is thereby relieved; a *hernia cerebri* is established. For this operation some surgeons prefer the right temporal region, where there would be a minimum of symptoms resulting from pressure of brain substance against the edges of the bone. Cushing prefers the subtemporal region in tumors of the cerebrum and occipital region in tumors of cerebellum. He claims that in these situations we have a fairly silent area, and by preserving the temporal muscle we have an additional safeguard against too much protrusion and there is less danger of the incision breaking down and a fungus forming. The suboccipital muscles are utilized in the same way. (Dr. Wellington then detailed the technic of the subtemporal and suboccipital operations).

The chief object of decompression is the preservation of sight. De Schweinitz, who carefully examined cases operated on by Frazier, states that if the operation is performed during one of the first three stages of choked disc, the outlook is very favorable; later, however, little or no benefit can be expected. During the first 36 hours after operation congestion is diminished, but there is no marked change in the swollen nerve head for ten to fourteen days, and six weeks to two months are required for total disappearance. He claims that satisfactory results may be expected if the choked disc has not destroyed the optic nerve fibers. The length of time that relief continues will depend in a great measure on the nature of the growth; some tumors grow very slowly and the relief in these cases is usually prolonged; in some cases as long as five years.

Frazier reports decompression operations in 28 cerebral tumors with one death, and in 25 cerebellar tumors with 6 deaths. Of those who survived, 70 per cent. were much relieved and 10 per cent. completely, from the symptoms. Cushing reports 41 cases of decompression in cerebral tumor, with 5 deaths; 15 others died later; 21 were living at time of his report with their symptoms in complete abeyance.

When we consider that the condition for which the operation is done is otherwise practically hopeless, the results of operation are encouraging. An early diagnosis is, however, most im-

portant. In several cases, after decompression, the localizing symptoms became sufficiently evident to permit the radical removal of the tumor. The radical operation is the ideal one, but is possible in only a small percentage of cases. To do the operation the tumor must be localized, must be accessible, in most cases must be encapsulated or cystic, and it must not have caused too great destruction of brain tissue. The endotheliomas of the solid tumors are the most promising of good results; the gliomas it is dangerous to remove. Encapsulated tumors cause symptoms from direct pressure; removal of the tumor relieves the symptoms; an infiltrating growth causes symptoms by destroying brain cells; removal of the tumor rarely relieves symptoms and may aggravate the condition.

The radical operation is best preceded by the osteoplastic flap; this is much better than a trephine opening and permits replacement of the flap without bony defect. Control of hemorrhage is absolutely necessary and may be secured by pressure or ligation. The meningeal vessels should be doubly ligated before incising the brain substance. Gauze packing and drainage should be avoided when possible. The blood pressure should be constantly taken to give warning of dangerous shock. Cushing reports 23 radical operations with 16 recoveries and more or less restoration of function.

A skilled neurologist should be consulted in all cases of suspected brain tumor, since it is only through an early diagnosis that there can be any hope of cure or relief.

Dr. Vaughan said that those who had spoken seemed to be a unit in advocating operation for brain tumors. Medical treatment had not been spoken of, but hardly amounts to more than the administration of potassim iodid. The old rule was to give this drug three months before operating; this period is too long, in Dr. Vaughan's opinion; he does not believe that the drug ever does good in brain tumor. Surgical treatment is palliative and curative. Palliative treatment can usually be resorted to; but the proportion of cases in which curative measures can be employed is very small; perhaps not over 6 per cent. or 7 per cent. of tumors are removable. This does not mean that such a small proportion of cases only can be relieved; many more can be relieved, but definite cure is infrequent because such a large proportion of brain tumors are on the brain stem. He recounted a case of cerebellar cyst in a boy; he had operated in this case and had evacuated the cyst with good results. Later the fluid reaccumulated under the scalp and caused symptoms which were relieved by emptying the fluid; this was repeated a number of times, until now the condition seems quiescent. The ultimate outcome is doubtful. Recently he has been using a patented instrument—Hudson's trephine drills; the claim is that these

drills will stop as soon as the bone is perforated. The claim is nearly but not quite true. (He exhibited the instrument.)

Dr. W. P. Carr said that whenever a positive diagnosis of brain tumor is made, if there are any localizing symptoms at all the patient should be operated on; the nature of the growth and whether it is removable or not cannot be known except by exploration. He believes that if tumor is only suspected, but if the symptoms have lasted a long time, such cases ought to have an intracranial exploration. He has come to believe that opening the skull is a safer operation now-a-days than opening the abdomen. The cranial cavity is the most resistant of any to infection, and brain tissue is less easily infected than any other. There are only two other dangers: they are hemorrhage, which is controllable, and shock. Even if brain tumors are localized by the neurologist, experience shows that there is still much actual locating to be done by the surgeon after the skull is opened; therefore he deprecates making small openings. There is no more danger in a large osteoplastic flap than in a small one. A simple trephine hole is useless; but a large flap allows of the examination of the whole hemisphere and the under surface of the brain as far as the third ventricle. The reason the Hudson drill stops before entirely perforating the skull is that the guides are eccentrically arranged, so that when the point has no bearing surface the instrument jams and can no longer be turned.

He agreed with Dr. Wellington that the reason so many cases of brain surgery are fatal is that surgeons are timid, make too small flaps, and, operating through small openings, make too much pressure upon the brain: it is the pressure that does the harm. Cushing now makes large flaps on each side and pushes the brain out of the cranium, thus avoiding compression during manipulation.

Dr. Carr had operated successfully (by which he means that he found the tumor and removed it) in only three cases; these he narrated. In eight out of thirty cases he has effected a cure of epilepsy, the cure extending at least over three or four years. Horsley had said that only 6 per cent. of cerebral tumors are operable; Dr. Carr thinks that with the proper technic—a very large flap, quick operating, and hemorrhage properly controlled—90 per cent. should be operable; that is to say, the tumor should be removed and the patient not killed by the operation; he did not mean that the patients would be cured in this proportion, nor that the tumor should not recur.

Dr. Williams reiterated the importance of early operation for these cases if life is to be saved. It is before choked disc, persistent headache and propulsive vomiting have become established that there is the best opportunity for diagnosis of the site of the growth, for these are focal signs not masked by general

edema of the brain which so often causes equivocal signs that may mislead an unwary observer. An examination should be made by a properly trained neurologist of all cases loosely labelled hysteria, epilepsy, neurasthenia, headache, recurrent paresis and tremors; difficulties of speech, hearing or sight, as well as emotional outbreaks or dullness of mind, should receive neurological advice too, or valuable time may be lost. The hemianopsia of his first case was such a localized sign and must have been present to some extent for months. Of course it is true that, as Dr. Shute says, a lesion causing hemianopsia may occur in any lobe of the brain, even at the base, outside the brain altogether. This does not negate the focalizing significance of the sign, however, for in each lobe the concomitant signs vary. When in the frontal lobe, mental dullness and silly emotionalism will prevail; if in the temporo-sphenoidal lobe, troubles of understanding are likely to show themselves as well as signs showing involvement of the sensory and motor tracts as they cross the lesion; while a lesion in the occipital lobe may present no other focal symptom or be complicated by the so-called psychic blindness, alexia. If the lesion is at the base, marked cranial-nerve involvement is hardly likely to be absent while an anterior lesion abolishes the contraction of half the pupils to light.

The focalizing value of hemianopsia is thus the same as that of a lesion of any large tract, such as the psychomotor fibers; the spastic paralysis produced when this is troubled may be of cortical, subcortical, capsular, basal, pontine, medullary, or spinal type; each is detected by the concomitant symptoms.

The life of this patient even at the late stage would certainly have been saved had the operation not been opposed by those who had not kept themselves informed of neurological progress. Although the second and third cases still live, yet it is only a respite, and they will follow the steps of so many neglected cases of the same kind in the past, where a remission of symptoms gives false hope to those uninformed in such cases. One has remained, though blind, free from headache and discomfort over a year, only to die in the end when the pressure ceased to be compensated by the receding brain.

Dr. Hickling said that there is a general misapprehension as to the value of choked disc as a diagnostic sign; it does not always mean brain tumor, because there are several sources of error; it may be caused by Bright's disease, anemia, or chronic lead poisoning. Conversely out of 50 cases of brain tumor choked disc was absent altogether in 7; was in the eye opposite to the tumor in 11; was in the eye on the same side with the tumor in 19; and was present in both eyes in the remaining 13 cases.

PROPOSED AMENDMENT (SUBSTITUTE) TO THE CONSTITUTION OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA, INTRODUCED AT ITS MEETING OF JANUARY 2, 1911, BY J. B. NICHOLS.

CONSTITUTION.

I.—NAME.

The name of this organization shall be THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

II.—OBJECT.

The object of this Society shall be the promotion, locally and generally, of the science and art of medicine and sanitation and the interests of the medical profession.

III.—STATUS.

1. This Society shall be a continuation and amalgamation of the Medical Society of the District of Columbia (founded September 26, 1817, and chartered by acts of Congress of February 16, 1819, and July 7, 1838) and the Medical Association of the District of Columbia (organized January —, 1833).

2. This Society shall conform to Act of Congress of ——— —, 1911, being its charter of incorporation.

3. This Society shall be a representative medical organization of the District of Columbia, constituted and maintained in conformity with the general plan of the American Medical Association; it hereby declares its allegiance to the American Medical Association and agrees with other state and territorial medical associations to the formation and the perpetuation of the House of Delegates of the American Medical Association; and on these grounds it claims eligibility for recognition as a constituent association of the American Medical Association.

IV.—MEETINGS.

1. This Society shall hold regular meetings every Wednesday during the months from October to May inclusive, excepting the last two Wednesdays in December and Wednesdays falling on January first, beginning at eight o'clock P. M.

2. The meetings occurring on the first Wednesday (not a legal holiday) in the months of January, March, May, and November shall constitute the stated meetings, and shall be devoted to the transaction of the formal periodical business of the Society. The stated meeting occurring on the first Wednesday in January following New Year's Day of each year shall constitute the annual meeting of the Society, and shall be devoted to the reception of annual reports and other annual business.

3. The meeting on the first Wednesday of December of each

year shall be devoted to the election of officers for the ensuing calendar year.

4. Aside from the stated meetings, the regular meetings of this Society shall be devoted primarily and mainly to scientific proceedings, namely, the presentation of cases, specimens, and papers on medical subjects. At such meetings current and routine business may be transacted, and also any emergency, urgent, or necessary business that may arise. The conduct of the scientific programs of such meetings may be assigned equitably to the various sections; and social sessions may also be held.

5. Special meetings shall be held as may be ordered by the Society or Executive Committee, or upon the written request of any ten members.

6. Due notices of each regular and special meeting shall a sufficient time previously be sent to each active member in which shall be specified so far as possible the program contemplated for the meeting, both as to scientific material and items of important business.

7. Any business due to be transacted at any stated, regular, or special meeting of the Society may, if circumstances necessitate, by vote of the Society (or, in case of emergency, of the Executive Committee), be postponed to a specified subsequent meeting. Due notice of such postponement shall be sent to every member, and such postponed transactions shall be as valid as if effected at the original meeting.

V.—MEMBERSHIP.

1. The members of this Society shall be of two classes, active and honorary.

2. Every active and honorary member of either the Medical Society of the District of Columbia, or the Medical Association of the District of Columbia, or of both, in good standing at the time this Constitution goes into effect shall, *ipso facto*, become a member (active or honorary as the case may be) of this Society; and the order of seniority of such members shall be reckoned from the date of their first admission into either of those bodies.

3. Active membership in this Society shall (with such exceptions as may occur in consequence of the operation of the foregoing section) be limited to reputable regular legally qualified practitioners of medicine residing in the District of Columbia ostensibly and solely or mainly engaged in the lawful practice of medicine therein.

4. Applications for active membership must be made in writing on forms provided by the Society, indorsed by three members of the Society, and sent to the Secretary, who shall present them at the next stated meeting of the Society. They shall then be referred to the Committee of Censors, who shall investigate and submit report thereon at the next ensuing stated meeting, when

they shall be voted on by the Society. Due notice of the names of all candidates to be voted on for membership at each stated meeting shall be sent to all active members a sufficient time previously. The voting shall be by individual secret ballot (in no case by empowering any officer or member to cast a unanimous ballot), and a favorable concurrence of two-thirds of the votes cast shall effect election to membership. After election applicants shall, within three months, pay an admission fee of two dollars and sign an obligation to be governed by the Constitution and By-Laws of this Society; whereupon they shall become full active members.

5. This Society shall be governed and conducted exclusively by its active members.

6. Twenty-one active members present shall constitute a quorum for the valid transaction of the business of the Society.

7. All duties, obligations, and regulations as to their professional conduct and relations with this Society and with one another which shall be imposed by the Constitution and By-Laws of this Society shall be binding and mandatory upon all active members, and for violation thereof they shall be subject to discipline by the Society.

8. Charges against any member or members must be submitted in writing, giving specific facts, to the Executive Committee, and shall then be fully and impartially investigated by them, the accused being given a fair hearing. Should this committee by a two-thirds vote find the accused guilty of a violation of the regulations of the Society, they shall submit their report and recommendations in writing to the Society at a regular meeting, due and ample notice of such prospective report to be previously sent to all the active members; the matter shall then lie over until a subsequent regular or special meeting to be fixed upon by vote of the Society; at which meeting (of which due notice shall be previously sent to all the members) the matter shall be discussed and acted upon, and such punishment (reprimand, fine, suspension, expulsion, and the like) may be imposed as may be determined upon by a concurrence of two-thirds of the votes cast. No punishment shall be imposed upon any member except after the foregoing procedure is carried out and by a two-thirds vote.

9. Any member who changes his residence or occupation in such a way as to extinguish his eligibility to membership in this Society may, unless he resign, be proceeded against in the manner specified in the foregoing section, with a view to terminating his membership.

10. All members two years in arrears in the payment of dues or assessments shall, at any stated meeting and after thirty days' notice to them, be dropped from membership, unless the indebtedness be remitted by a majority vote.

11. Members desirous of resigning from the Society shall sub-

mit a written resignation, which after being read at any regular meeting, shall be voted on at the next regular meeting and, with the concurrence of a majority, be accepted. No resignation shall be accepted from a member who is indebted to the Society for dues or assessments, unless the latter are remitted.

12. Notice of the names of members resigned, dropped, or expelled from the Society shall, at the next convenient opportunity, be sent to all the active members.

13. Any physician, scientist, or other person who by reason of eminent contributions to medical or collateral science or of meritorious services to the medical profession deserves recognition may, by any two members in writing at any stated meeting, be proposed for honorary membership. The proposition shall be considered by the Committee of Censors and reported on at the next stated meeting, and shall then be voted on by the Society in the same manner as applications for active membership. Favorable concurrence of two-thirds of the votes cast shall effect admission of the candidate as an honorary member. Honorary members shall have the privilege of attending the meetings and participating in the scientific proceedings of the Society, but shall not hold office or vote; notices of meetings need not be sent to them unless they are resident in the District of Columbia or so desire.

VI.—OFFICERS.

1. The officers of this Society shall be a President, a First and a Second Vice-President, a Recording Secretary, a Corresponding Secretary, and a Treasurer, who shall be elected by ballot on the first Wednesday in December of each year, and on the first day of January following shall assume office and serve as such for the calendar year ensuing or until their successors assume office; and a Delegate, with an Alternate, to the American Medical Association (who must have been members of the American Medical Association for at least two years), who shall be elected by ballot biennially on the first Wednesday of December of odd-number years, to serve for two years.

2. Whenever a vacancy occurs in any office or elective committee membership, an election for the remainder of the term of office may be held at any regular meeting after due notice shall have been sent to all the members.

3. The President shall preside over the meetings of the Society; authenticate by his signature the papers and disbursement vouchers of the Society; call special meetings at the request of the Executive Committee or any ten members; deliver an annual address at some meeting in December of each year; be *ex-officio* a member of the Executive Committee; and perform such duties as may be imposed on him by the Society, or in general, pertain to his office.

4. The Vice-Presidents shall, in order of their rank, assume the duties of the President during his absence or inability to act.

5. The Recording Secretary shall make full records of the proceedings of the Society, and after their approval by the Society, preserve them in secure and permanent bound form; he shall act as reading clerk at the meetings; he shall be the custodian of and responsible for the books, records, papers, and other property of the Society (excepting funds and current financial records), which he shall keep in secure and accessible form; he shall endeavor to obtain the signatures of newly elected members to the obligation to be governed by the Constitution and By-Laws of the Society; and perform in general such duties as may be imposed by the Society or are pertinent to his office. For his services he shall receive a salary of two hundred dollars per year.

6. The Corresponding Secretary shall notify members and officers of their election, inform committee appointees of their selection and the duties with which they are charged, advise persons concerned of action taken affecting them, and in general conduct the correspondence of the Society; he shall issue proper credentials to the Delegate to the American Medical Association; he shall maintain a complete and accurate list of active and honorary members, with their addresses, and each year send such list to every member of the Society; he shall, after conference with the Program Committee, a sufficient time previously send to all members, and to such others as may be designated, an announcement of each regular and special meeting, specifying the cases, specimens, and papers to be presented, the names of all applicants for membership to be voted on, reports of the Executive Committee on the investigation of accused members to be presented or considered and acted on, amendments to the Constitution and By-Laws and proposed special assessments to be voted on, postponed stated business, interim elections, and so far as possible all important items or the general character of the business to be transacted; he shall also notify the members of the names of members recently resigned, dropped, or expelled; and perform such other duties as may be imposed on him or pertain to his office. For his services he shall receive a salary of two hundred dollars per year.

7. The Treasurer shall collect and have charge of all moneys due the Society, sending out bills therefor at proper times; deposit them to the credit of the Society in a bank designated by it for that purpose; keep the accounts of the Society with its members and others; make all disbursements ordered by the Society on vouchers authenticated by the President; keep an accurate record of receipts, disbursements, funds, and assets; furnish such security as may be required; at each annual meeting, or at any time he is so ordered by the Society, shall render a statement of his accounts, with vouchers, which shall be audited by the Executive

Committee; and he shall be *ex-officio* a member of the Executive Committee. For his services he shall receive a salary of two hundred dollars per year.

8. The Delegate to the American Medical Association, or his Alternate, if he be unable to serve, shall attend the sessions of the House of Delegates of the American Medical Association as the accredited representative of this Society.

VII.—STANDING COMMITTEES.

1. This Society shall maintain the following standing committees, namely, an Executive Committee, a Committee of Censors, a Committee on Program, and a Committee on Publication.

2. The Executive Committee shall consist of the President, Treasurer, Delegate to the American Medical Association, the chairman of each section, and the chairmen of the Committee of Censors, the Committee on Program, and the Committee on Publication, *ex-officio,* and of nine elective members. The elective members shall be elected on the first Wednesday of December in each year, to serve (after 1912) three years each; and shall be so arranged that each year the terms of office of three of them shall expire and then be refilled; vacancies occurring among the elective members may be filled by election by the Society for the remainder of the term of office; and no elective member at the expiration of his term shall be reelected before the lapse of one year. Seven members of the committee present at its meetings shall constitute a quorum for the transaction of its business.

The Executive Committee shall maintain an organization by the annual election of a chairman, vice-chairman, and secretary, and shall keep full records of its proceedings. It shall hold meetings at the discretion of its chairman or at the call of any three of its members. It shall keep informed in all matters pertaining to the objects, interests, policy, and conduct of this Society, and report for the action of the Society such recommendations as to those matters as it may deem advisable. It shall exercise general oversight over the work of the officers, committees, and sections. It shall annually audit the accounts of the Treasurer. It shall receive, investigate, and report to the Society, in the manner hereinbefore prescribed, all charges against members of violation of requirements of the Constitution or By-Laws. It shall endeavor to adjust minor complaints and differences of members, without reporting to the Society; subject, however, to appeal to the Society. It shall consider, report upon, and under the direction of the Society, promote or oppose legislative matters or action affecting the Society. It shall perform such duties as the Society may assign to it; in emergencies it may act for the Society; and it shall be subject to the control and direction of the Society.

3. The Committee of Censors, Committee on Program, and

Committee on Publication shall consist of five members each, and shall be appointed by the President at the time of his assumption of office, to serve until their successors are appointed. Vacancies shall be filled as they occur by appointment by the President. The chairmen of these committees shall be designated by the President, and shall be *ex-officio* members of the Executive Committee.

4. The Committee of Censors shall investigate and report upon applications for membership.

5. The Committee on Program shall secure and arrange for the presentation of medical cases, specimens, and papers at the meetings of the Society, and shall prepare the notices of the business and scientific programs of the meetings to be sent to the members by the Corresponding Secretary.

6. The Committee on Publication shall have charge of the publication of the transactions of the Society; and its chairman and members shall be the Editors and Associate Editors of such periodical publication as may be issued.

VIII.—SECTIONS.

1. Whenever a sufficient demand therefor arises, active members may organize sections, composed of special classes of the membership or devoted to the consideration and promotion of special branches of medical science and art, by securing the adoption of amendments to this Constitution recognizing and establishing each section by name as a definite department of this Society. The sections shall rank in the order of their dates of establishment. Each section shall form and maintain an organization by adopting by-laws, and annually in December, electing a chairman, vice-chairman and secretary, to serve for the ensuing calendar year. The chairman of each section shall, *ex-officio*, be a member of the Executive Committee of the Society. Each section shall have control of the election of its own members, who must, however, be active members of this Society; but any applicant rejected for membership in a section shall have the right of appeal to the Society, in which case it shall require a two-thirds vote to sustain the appeal. No limit to the number of members in any section shall be fixed. Each section shall arrange for the time and place of its meetings, but shall not hold sessions at the same time with the regular meetings of the Society; by arrangement with the Society or the Committee on Program, however, the scientific proceedings of regular meetings of the Society may, either occasionally or at stated intervals, be conducted by the sections. All members of the Society shall have the right to attend the scientific sessions of any section, but not without permission or invitation to participate in the discussions (except when held at the regular meetings of the Society). So far as possible, notices of the programs of the meetings of the

sections shall be sent to all the members of the Society in conjunction with the notices of the weekly meetings of the latter. The transactions of the sections may be published with the transactions and proceedings of the general Society. Sections may at any time submit to the general Society reports or recommendations for the information or action of the latter. Each section shall be governed and conducted by its own members; but its proceedings and organization must conform to the Constitution and By-Laws of this Society, and it shall be subject to the control of, and appeal to, the Society; provided, that it shall require a two-thirds vote of the Society to reverse any action taken by any section. The Society shall not, without its consent, be put to any expense on behalf of any section. Each section shall furnish to the Society a copy of its by-laws and all amendments thereto as made; and shall submit such information concerning its operations as the Society may at any time require. Each section at the annual meeting shall submit a report of its proceedings during the preceding year, giving the names of its officers, the number of its members, the number of and attendance at its meetings, the work accomplished, and in general, such information as may keep the Society advised as to its activity, success, and character. The existence of any section may be terminated by the adoption of an amendment to this Constitution annulling its recognition and establishment.

2. The following sections are recognized and established as definite departments of this Society:

Section on medical history.

Section on therapeutics.

Section on ophthalmology, otology, rhinology, and laryngology.

IX.—FUNDS AND PROPERTY.

1. All funds, records, papers, and property of all kinds belonging to the Medical Society of the District of Columbia and the Medical Association of the District of Columbia at the time of their amalgamation shall become the property of this Society. All the records, minutes, and important papers of all these organizations shall be carefully and perpetually preserved.

2. For the purpose of defraying the expenses of this Society, annual dues of four dollars each shall be paid by each active member, collectible at any time during the year; special assessments may also be levied at any meeting after due notice of such proposed action shall have been sent to the members. Dues and assessments may, in worthy cases, be remitted; and permanently in the case of deserving superannuated members.

X.—BY-LAWS.

1. By-Laws not inconsistent with this Constitution, and which shall equally with it be binding on the members, may be adopted by a favorable concurrence of two-thirds of the votes cast at any

stated meeting, after having been proposed in writing at a previous stated meeting and a copy thereof been sent to all active members with a notice of the meeting at which their adoption is to be voted on.

2. The operation of any by-law may, at any meeting and for a definite purpose, be suspended by a two-thirds vote; but for that purpose and at that meeting only.

XI.—AMENDMENTS.

1. Amendments to this Constitution or the By-Laws may be adopted by a favorable concurrence of two-thirds of the votes cast at any stated meeting, after having been proposed in writing at a previous stated meeting and a copy thereof been sent to all the active members with a notice of the meeting at which their adoption is to be voted on.

2. No provision of this Constitution shall be suspended or abrogated under any circumstances whatever, even by unanimous consent, except through amendment by the procedure specified in the foregoing section.

XII.—EFFECTUATION.

This Constitution shall go into effect upon its adoption by both the Medical Society of the District of Columbia and the Medical Association of the District of Columbia.

BY-LAWS.

(To be formulated later.)

1. Parliamentary authority (Robert's Rules of Order).
2. Order of business.
3. Guests and visitors.
4. Essays and discussions.
5. Form of application for membership.
6. Form of obligation of new members.
7. Duties and professional relations of members.
8. Hospitals and their medical staffs.
9. Fees.

In Memoriam.

PRESLEY CRAIG HUNT, M. D.

Presley Craig Hunt was born in Rhode Island, March 4, 1871, and died at Johns Hopkins Hospital, Baltimore, December 15, 1910.

His early education was received at Emerson Institute in this city. He attended the Medical School of Georgetown University and received the degree of M. D. from that institution in 1891. He became a member of this Society in 1894. Of

his professional ability and work suffice it to say that he enjoyed the confidence, esteem and respect of his professional confreres. But it is more particularly as a man that Dr. Hunt impressed all who came in more intimate contact with him. His native diffidence gave a first impression of aloofness to making friends. To those, however, who by longer opportunity came to know him better there was no truer friend, no more honorable man, and no higher type of gentleman than Presley Craig Hunt. In his untimely demise the Society has lost a valued member and his friends a companion they cannot replace.

To his family in their irreparable loss and bereavement we extend the heartfelt sympathy of this Society.*

(Signed) W. F. R. Phillips,
J. J. Kinyoun,
L. H. Taylor,
Committee.

DR. WILLIAM L. MILLER.

Dr. William L. Miller was born on January 22, 1859, at 410 K street, N. W., in this city, where he lived most of his life. He finished the grammar school in this city when he was twelve years of age; then he attended the Brookeville Academy, in Maryland, for three years. After this he took a course in the Maryland Agricultural College for two years. Finishing his work at that college, he passed the entrance examination for the Polytechnical Institute at Troy, N. Y., but remained at this institution only a short time. He then entered the Medical Department of the Columbian University, in this city, taking the full course and graduating with honorable mention in 1883, when he was only 23 years of age.

After graduating he practiced medicine at Brookeville, Md., for one year. He then returned to Washington, making his home and office at 410 K street, N. W., where he remained until a short time before his death, which occurred in this city on November 19, 1910. He was married on February 23, 1898. He never had any children and his widow survives him. Dr. Miller enjoyed a good practice, and was a successful and able physician, and endeared himself to his patients by his kindly, considerate, and sympathetic conduct. He was of a modest and retiring disposition, caring little for society, but loving to entertain his intimate friends in his home. In his death we mourn the loss of a kindly and sympathetic friend and an upright and honorable citizen.

Your committee recommends the adoption of the following:

Resolved, that the members of the Medical Society of the

* Adopted by the Medical Society, January 18, 1911.

District of Columbia have learned with profound regret of the death of their late colleague, Dr. William L. Miller.

Resolved, that the Corresponding Secretary is directed to forward to Dr. Miller's widow a copy of these resolutions.*

(Signed) D. K. Shute,
W. P. Carr,
E. A. Balloch,
Committee.

DR. JAMES KERR.

It is with deep regret that we have learned of the death of our fellow member, Dr. James Kerr, at his home near Warrenton, Va., on February 2, 1911.

Dr. Kerr was born at Roselick, Port Stuart, in County Derry, Ireland, December 14, 1848, and was 62 years old at the time of his death. He was educated at the Coleraine Academic Institute and Queen's University, Belfast, and received the degree of M. D. and M. Ch. from Queen's College, Dublin, in 1870. For a short time he served as apprentice to a surgeon in Leicestershire, England, but soon gave this up to go as Transport Surgeon with the famous Black Watch Highlanders on the Gold Coast expedition during an outbreak in King Coffee land. After this he served as surgeon in the British mail service, running between Liverpool and Montreal. It was during this term of service that he met Miss Laurie Bell, whom he afterwards married, and formed a lasting friendship with Dr. Osler and also with Drs. Roddick, Bell and Shepherd, of McGill University. Later he settled in Londonderry and became surgeon to the Canadian Iron Company.

About 1880 he moved to Winnipeg and was the first surgeon to the Manitoba General Hospital and one of its founders, and Professor of Surgery in the Manitoba Medical College. He was for some time chief surgeon of the Western Division of the Canadian Pacific Railroad and saw service in the Riel Rebellion in Canada. He came to Washington in 1887 and for some months acted as Superintendent and Surgeon to Garfield Hospital. While in active practice in this city he was at various times Surgeon to the Woman's Clinic, to the Emergency Hospital, and to Providence Hospital, and did much to organize and perfect the surgical service and technic of these institutions.

He was for some years Professor of Surgery in the Georgetown University and Clinical Professor of Surgery in the Columbian (now George Washington) University. Dr. Kerr was recognized by all as a man of very high attainments and as a surgeon of great ability. He was not a writer, though he con-

* Adopted by the Medical Society, February 1, 1911.

tributed a number of clinical papers and reports; but his work as a surgeon and teacher is deserving of the highest praise. Many persons are living today who owe life or limb to his experienced judgment and skill; but in no way did he do more good than in organizing the surgical services in numerous institutions with which he was connected and in contributing to the rapid advance in surgical technic that was taking place at that time.

He was a strong and positive character, making many warm friends and necessarily not a few enemies. The latter he fought always openly and above-board. To his friends he was loyal and a charming companion and to them the failure of his health for the last four or five years has been a keen regret and his comparatively early death a great loss. The loss, too, to the medical profession in being thus deprived of the teaching and counsel born of his wide experience and ripe judgment is hard to estimate.

We wish also to express to his family our heartfelt sympathy individually and as a body.*

(Signed) W. P. Carr,
Edward Mason Parker,
D. K. Shute,
Committee.

PROCEEDINGS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Stated Meeting, Monday, January 2, 1911.—The President, Dr. Louis Mackall, presided; about 150 members present.

The following names were dropped from the roll without prejudice: Samuel Fry, A. C. Fitch and Joseph Murphy.

The following communication was received and ordered to be recorded:

"Dec. 30, 1910.

"The Society of Ophthalmologists and Otologists of Washington, D. C., presents the request that upon the consummation of the project to amalgamate the two local medical organizations, it be known as the third section, and include the subjects of Ophthalmology, Rhinology, Otology and Laryngology.

"Respectfully,
(Signed) "Robert Scott Lamb,
"Secretary."

Dr. McLaughlin, for the Committee, recommended that the Society honor Dr. A. F. A. King by giving a dinner or other fitting social gathering February 21st, the fiftieth anniversary of his graduation. The recommendation was adopted, and the

* Adopted by the Medical Society, February 8, 1911.

Chair appointed the following committee to make the necessary arrangements: T. N. McLaughlin, *Chairman;* S. S. Adams, Jno. VanRensselaer, J. R. Wellington, J. D. Thomas, L. H. Reichelderfer, E. A. Balloch, J. W. Chappell, H. D. Fry, Prentiss Willson, C. W. Richardson, N. P. Barnes, F. R. Hagner, Frank Leech, H. C. Macatee, G. N. Acker.

The Chair announced the death of Dr. P. C. Hunt, and named the following committee to report resolutions of respect: Drs. W. F. R. Phillips, J. J. Kinyoun and L. H. Taylor.

Major and Surgeon Thomas L. Rhoades and Captain and Asst. Surgeon Albert G. Love, U. S. A., were elected members by invitation.

Dr. Chas. W. Richardson, chairman of the Executive Committee, reported that efforts had been made to secure the passage by Congress of the amendments to the charter desired by the Society; a bill for this purpose was introduced in the Senate December 12th last, and he had been assured that the bill would pass.

Dr. G. Wythe Cook, for the Committee on Relations with the Medical Association, reported the present status of the negotiations to secure amalgamation, and outlined the plan submitted to the joint committee for consideration. Nothing conclusive had been as yet accomplished.

Dr. A. B. Hooe, offered a resolution which was adopted, instructing the Executive Committee to arrange if possible to secure the use of a lecture hall at the George Washington University Medical School for the meetings of the Society.

The following officers were then elected for the year 1911:

President, Dr. W. M. Barton; Vice Presidents, Drs. W. A. Wells and H. T. A. Lemon; Treasurer, Dr. C. W. Franzoni; Corresponding Secretary, Dr. T. C. Smith; Recording Secretary, Dr. H. C. Macatee; Librarian, Dr. E. L. Morgan; Board of Censors, Drs. D. O. Leech, H. B. Deale, J. S. Wall, F. R. Hagner and J. F. Moran.

The President, Dr. Barton, was elected to represent the Society in the Washington Academy of Sciences.

A rising vote of thanks was given to Dr. Mackall, for the impartial and satisfactory manner in which he had performed the duties of the presidential office during the past year.

Dr. J. B. Nichols proposed an amendment to the Constitution. His purpose was to afford a working foundation upon which the establishment of the constitution of the proposed new body to be formed from the amalgamation of the Society and the Medical Association of the D. of C. might proceed; the necessary amendments would naturally follow when the proposition submitted comes up for consideration. The society ordered that the proposed amendment be printed and distributed to the members in due season. See p. 21.

The Board of Censors was directed to investigate the origin

of an anonymous paper derogatory to the professional character of Dr. P. S. Roy, which paper had been circulated among the members of the Society, and report its findings to the Society so that the member or members responsible for it might be dealt with in such manner as the Society might determine.

Wednesday, January 11.—The President, Dr. W. M. Barton, presided; about 70 members present.

Dr. Heitmuller rose to a question of personal privilege and stated that at the meeting held January 2d the Board of Censors had been instructed to investigate the origin of a paper which had been characterized as derogatory to the professional character of a member of the Society. Dr. Heitmuller desired to assume responsibility for the circulation of the paper, a copy of which he submitted with the request that it be read, and he demanded a full investigation of his conduct in the matter. The declaration and the paper were referred to the Board of Censors.

Dr. Kober wished it to be understood that while he was aware of the existence of the paper under discussion, he had been in no wise responsible for its circulation.

Dr. Kebler also knew of the paper submitted by Dr. Heitmuller and had been instrumental in the circulation of a few copies of it; he expressed his willingness and desire to appear before the Board of Censors.

Dr. Bovée read the essay for the evening: Review of the "Progress of Gynecology in 1910." Discussed by Drs. I. S. Stone, Balloch, J. D. Morgan, I. H. Lamb, Kober and Bovée. See p. 1.

Wednesday, January 18.—The President, Dr. Barton, presided; about 90 members present.

Dr. McLaughlin, for the Committee on the "King" dinner, announced that the committee had arranged to hold the dinner February 21st, that Dr. Macatee had been appointed Treasurer of the Committee, and that subscriptions of $5.00 per plate were invited.

Dr. L. H. Taylor presented resolutions of respect to the memory of Dr. Presley Craig Hunt, which were unanimously adopted. See p. 29.

The Chair announced the following committee appointments:

Executive Committee (to serve five years): Louis Mackall, Louis Johnson, Lewis J. Battle.

Committee on Public Health: Joseph S. Wall, Chairman; J. Ramsay Nevitt, E. M. Hasbrouck, Jas. F. Mitchell, E. B. Behrend, Jas. A. Gannon, Mary A. Parsons, S. L. Owens, Chas. W. Hyde.

Committee on Essays: Thos. C. Smith, Chairman; John E. Walsh, J. B. Nichols, W. F. R. Phillips.

Committee on Editing the Transactions: D. S. Lamb, Chairman; B. G. Pool, Prentiss Willson, H. H. Donnally.

Committee on Microscopy: Roy D. Adams, Chairman; J. A. O'Donoghue, Raymond A. Fisher.

Committee on Directory for Nurses: Thos. A. Groover, Chairman; Ada R. Thomas, C. W. Allen, John Constas.

Committee on History of the Society: D. S. Lamb, Chairman; C. W. Franzoni, G. Wythe Cook, C. V. Petteys, R. T. Holden, Llewellin Eliot, Chas. K. Koones.

The amount of $4.00 was assessed against each member, as dues for the current year.

The program for the evening being a Symposium on Intracranial New Growths.

Dr. D. S. Lamb presented the following specimens: Two specimens of Glioma of Cerebrum, and one each of Spindle-celled sarcoma of cerebellum, Fibro-sarcoma of brain, Cyst of cerebrum arising from pia mater, Osteoma of pons, Epithelial angio-sarcoma of brain, Cholesteatoma of frontal lobe, Endothelial cyst of brain, Endothelial tumor of pia mater, Endothelioma of cerebellum, Cyst of pineal gland, Endothelioma of brain, Cyst of Cerebellum, and Neuro-glioma of frontal lobe.

Dr. I. W. Blackburn presented the following specimens: Two Spindle-celled endothelial sarcomas, from dura mater, one each of Endothelial sarcoma, right Rolandic region, Glioma, left hemisphere, Tumor (not diagnosticated) of pituitary region, and Glioma of centrum ovale.

Dr. Tom A. Williams read a short paper on Diagnosis and Indications for Treatment of Intracranial Tumors: Discussed by Drs. Hickling and Shute; and the following members briefly addressed the Society on the subject of Treatment: Drs. Wellington, Vaughan, and Carr. See p. 12.

Wednesday, January 25.—The President, Dr. Barton, presided; about 75 members present.

Dr. D. S. Lamb, for the Editorial Committee, presented a bill for publication of the last number of the Annals, $90.04. The Society expressed its confidence in the committee, and ordered the bill paid.

Dr. Randolph presented a specimen of *Sarcoma of the Intestine*, with report of the case.

He said that sarcoma of the intestine is rather rare, and therefore he thought it interesting to present the specimen. The patient had been under the care of Dr. Jackson, through whose courtesy the case was reported. A man, 40 to 45 years old, had a subcutaneous nodule removed from the back of his hand in September, 1899. It was examined and found to be sarcoma. Recurrence took place in the opposite shoulder in subcutaneous tissue with involvement of the axillary glands. These were removed but the operation was followed by rapid metastasis. Dr. Randolph saw the patient (who was then moribund) with Dr. Jackson to determine whether dulness on the side of the chest

from which the tumor had been removed was caused by pneumonia; but he thought that the dulness was caused by sarcoma of the lung or pleura. At the post mortem examination, a general sarcomatosis was found; nodules throughout the small intestine, large intestine, liver and spleen; the spleen nodules contained blood-filled cavities; but the lungs, pleurae and genito-urinary organs were free. There were tumors of the brain, both hemispheres being involved, although there had been scarcely any symptoms pointing to invasion of the brain. The spleen was fixed at its lower pole and was enormously enlarged; on account of the fixation the enlargement was upward and caused compression of the left lung and the dulness on that side. There was no pneumonia.

Dr. Claytor said that the case was interesting because of the wide dissemination of the neoplasms; it is not unusual when metastasis takes place that the new invasion is wide spread, nor for the disease to be first discovered as a subcutaneous nodule. He had had a patient a few years ago with a subcutaneous sarcoma; later there was general sarcomatosis, nodules even in the heart. The question of the primary site of sarcoma is often difficult to determine. An interesting point is the fact that a simple wart may, after injury, undergo sarcomatous degeneration and result in general sarcomatosis.

Dr. Randolph had omitted to mention that at the autopsy there were found eight or ten subcutaneous nodules scattered over the trunk and limbs.

Dr D. S. Lamb presented the following specimens: Perforating ulcer of duodenum and an internal strangulation of intestine by a loop of the vermiform appendix.

Perforating ulcer of duodenum; received at the Army Medical Museum from Dr. H. C. Coburn, formerly a member of this Society, now in the Medical Corps of the Army. The patient, a soldier age 31, of twelve years' service, had dysentery in 1899. From that time until July 15, 1910, there is no mention of any sickness. He then had acute indigestion and diarrhoea, followed sometime afterwards by a seizure of cramps; pulse 115, temperature 100.5, rigid upper half of abdomen, general tympanites, tenderness over entire abdomen, and severe pain in right shoulder and side. He died August 15th. At the post mortem examination the stomach and intestines were found distended with flatus; abdomen full of blood-stained fluid; general serofibrinous peritonitis, massive adhesions between stomach, intestines, liver and omentum, and the ulcer on the upper anterior mucosa of the duodenum adjoining the pylorus, clear cut and punched out; slight thickening for about one-third inch around the ulcer.

Strangulation of the ileum by a loop of appendix.—The specimen was received at the Army Medical Museum from Dr. J. R.

Barber, formerly of Washington, now in the Medical Corps, U. S. Army.

The patient, a Filipino and Quartermaster's employee, was sick about a week, but attended to his work until a few hours before his death, June 25, 1910. The post mortem examination showed the following condition: The appendix about midway of its tract was adherent to the caecum, forming a loop through which the lower end of the ileum had passed and become strangulated and partly gangrenous. The free end of the appendix was much dilated and was full of coagulated mucus and small blood clots, its walls thickened and mucosa partly destroyed in patches. Recent peritoneal exudate. Several mesenteric glands showed hemorrhages.

Dr. Vaughan spoke of the great interest attached to internal hernias of all sorts. He had operated upon the only case that he knew of in which the hernia was occasioned by a loop formed by the normal appendix. This was in a woman, about 60 years old, who was operated on the eleventh day after symptoms of obstruction had appeared. The symptoms were obscure; there was no fever; the diagnosis of mechanical obstruction was made. Following the rule to expect the obstruction in the right iliac fossa, the incision was made on that side and at once there appeared an appendix without a trace of inflammation about it, but curved on itself and with the tip attached at the origin of the organ by a strip of fascia. The hernia was through this loop; it was easily released, but peritonitis had already set in and the patient died on the third day after operation.

Dr. Vaughan said that duodenal ulcer probably is more common than is ordinarily suspected; the diagnosis of perforation of such an ulcer is not easy, although it is easy to make the diagnosis of some abdominal catastrophe requiring surgical intervention. He had recently operated upon a man from a neighboring town, who had been taken ill with pain in the right flank; appendicitis was suspected. Later he vomited blood and the diagnosis of gastric ulcer was made. Upon laparotomy, a perforating ulcer of the first part of the duodenum was found, which had resulted in an abscess back of the liver. On the twelfth day after operation, the patient was free of fever and seemed about convalescent; but after an enema, and while on the bed-pan, he suddenly complained of dyspnoea, became blue and was dead in five minutes. No autopsy was allowed, but it seems reasonable to conclude that death was due to pulmonary thrombosis.

Dr. Tom A. Williams exhibited a patient illustrating *Tic de salaam,* and gave the history of the case.

A young Hebrew boy in North Carolina with iliocolitis suddenly developed on going to bed one night an intense clonic contracture of the recti abdominis and diaphragm. This recurred every night, often keeping him awake for hours. It became less

and less controllable, and soon occurred during the day, while sitting. Then it began to come on while standing, until his life was a burden. The application of electricity, with the fervid assurance of its efficacy, made no impression, nor did "powerful and infallible" medicines. He came to Washington, and was referred to Dr. Williams by his physician, Dr. T. C. Martin. On recognizing that the disorder was a tic of hysterical type, the psychomotor discipline devised by Brissaud was employed. In this case it consisted of inducing the patient to perform slow, even, rythmical contractions of the recti, while taking slow deep breaths. In this way, control was gained over the muscles, so that when the paroxysms were about to begin, he had now a means of mastery, and substituted the newly learned movement for the automatic one which formerly took its own bent. He learnt in one day; too quickly as it proved; but after a slight relapse two days later, another sitting cured him. [He was shown recovered at the next meeting of the society, February 1.] Even for this very simple case, empiricism had failed where a little psychopathological knowledge reached the cause and led to the very simple means used for its removal without either psychoanalysis or reconstruction of the mentality. Such a symptomatic cure must of course be extended to a pathogenic one, *i. e.*, the reëducation of the patient's hysterizability. To indicate even the elements of this, another chapter will be required.*

Dr. T. C. Martin said that this patient had come to him a year ago with a mucous discharge from the bowel, associated with obstinate constipation. At that time abdominal examination was negative; proctoscopic examination showed injection and erosion, with spasmodic contraction of the rectal valves. Treatment with silver spray and dilatation of the valves gave relief and the patient went away. Recently he came back. Through the proctoscope the rectal picture was the same, except that there was a little polyp on the second valve. Abdominal examination revealed the tic as described by Dr. Williams; the oblique abdominal muscles were not involved. The explanation of the tic seemed to be a subconscious imperative concept, based on a constipated habit, and the obsession growing out of the habit produced this spasm of the principal accessory muscles involved in the act of defecation.

Dr. Williams said that physical examination of the patient showed that all the reflexes were rather exaggerated; in such a physical state, tics of the sort exhibited in the patient are apt to occur.

Dr. Moran read the paper for the evening. Title: "Fibroid tumors of the uterus complicating Pregnancy, Labor, and Puerperium." Discussed by Drs. I. S. Stone, Jos. Taber Johnson, G. Brown Miller, and Moran.

---

* Published in *Amer. Jour. Physiological-Therap.*, March, p. 458.

WASHINGTON MEDICAL ANNALS.

Journal of the Medical Society of the District of Columbia.

Published Bimonthly by the Society, at No. 2114 Eighteenth Street, N. W., Washington, D. C. Subscription price, including postage, $1.00 per year, in advance. Single copies, 20 cents. Advertising rates given on application.

EDITORIAL COMMITTEE.

D. S. LAMB, A. M., M. D., *Chairman*, . 2114 Eighteenth Street, N. W.
BENJ. G. POOL, M. D., . . . 945 Rhode Island Avenue, N. W.
PRENTISS WILLSON, M. D., ... The Toronto.

Editorial.

WE ARE ASKED TO ANNOUNCE that the Fourteenth Annual Meeting of the American Gastro-Enterological Association will be held in Philadelphia, April 19 and 20, 1911, at the Bellevue-Stratford Hotel, and physicians are cordially invited. Dr. Wm. Gerry Morgan, of this Society is on the program.

In the *Journal A. M. A.* for February 11, 1911, are two abstracts of papers from the WASHINGTON MEDICAL ANNALS, namely: the paper of Dr. Prentiss Willson on Kidney Displacements and that by Dr. D. S. Lamb on Aneurysms in the Army Medical Museum.

Dr. Willson's paper was also abstracted in the *Louisville Monthly Journal,* March, page 308.

MEDICAL HISTORY CLUB OF WASHINGTON, D. C.—Program for 1910-1911. *Officers:* President, Dr. James Dudley Morgan; Vice President, Dr. G. Wythe Cook; Secretary and Treasurer, Dr. Truman Abbe; Corresponding Secretary, Dr. Huron V. Lawson; Executive Committee, Drs. D. K. Shute, P. S. Roy, I. S. Stone and the Officers.

Meetings:

Date.	*Essay.*	*Host.*
Mar. 25.	Pasteur and the Bacterial Origin of Disease, By Dr. Hume.	Dr. Wall, 1730 M St.
Apr. 26	Casserius and Anatomical Illustration, By Dr. Baker.	District Medical Society.

THE HIPPOCRATES SOCIETY, the object of which is "the cultivation and promotion of knowledge in whatever relates to the science of medicine and surgery," holds meetings on the second and fourth Thursdays of each month from October to May. The membership in this Society is limited to 25. The officers for the present season are: President, Dr. Charles S. White; Vice Presi-

dent, Dr. Thomas S. D. Grasty; Secretary-Treasurer, Dr. Laurence M. Hynson.

Meetings:

Date.	*Essay.*	*Host.*
Mar. 23,	Dr. W. H. Merrill, 1913 14th St.	Dr. G. S. Saffold.
Apr. 13.	Dr. J. D. Rogers, 1752 S St.	Dr. S. H. Greene, Jr.,
Apr. 27.	Dr. W. H. R. Brandenburg, 1101 14th St.	Dr. W. G. Young.
May 11.	Dr. Chas. M. Beall, The Huntington.	Dr. J. R. Verbrycke, Jr.
May 25.	Smoker.	President's Address.

Society of Ophthalmologists and Otologists of Washington.—President, Dr. W. H. Wilmer; Vice President, Dr. S. B. Muncaster; Secretary-Treasurer, Dr. R. S. Lamb. Meetings every third Friday in the month from October to May. Banquet April 8, at the Arlington; Dr. George De Schweinitz, of Philadelphia; subject, The eye in its relation to tropical diseases.

Galen Society of the District of Columbia.—President, H. W. Kearney, M. D.; Secretary-Treasurer, C. C. Ammerman, M. D.

April 10. Dr. D. W. Tastet, Post-partum hemorrhage; at Dr. J. R. Biggs's, 1005 Virginia Avenue, S. W.

May 15. Dr. Ammerman, Treatment and sequelae of some of the common diseases of the nose and throat; at Dr. D. P. Bush's, The Henrietta.

October 9. Business meeting; at Dr. Kearney's 1221 O Street, N. W.

November 13. Business and Case Reports.

We have been requested to publish the following letter from the Glyco-thymoline Company:

New York, *Mar. 20, 1911.*

Washington Medical Annals, Washington, D. C.

Gentlemen:—Under date of December, 1910, there appeared an article in the *International Journal of Surgery* reporting the successful treatment of a case of Nasal Catarrh with Glyco-Thymoline occurring in the practice of Elmer Sothoron, M. D., Washington, D. C. This case was reported verbally to a former representative, Dr. R. North, and by him reported to us.

Through a most regrettable error on the part of our advertising manager, the fact was overlooked that this report was not written

by Dr. Sothoron, nor was its publication in the *International Journal of Surgery* authorized by him.

Yours very truly,

KRESS & OWEN COMPANY,
(Signed) SAMUEL OWEN, *Pres.*

BOOK REVIEW.

BISMUTH PASTE IN CHRONIC SUPPURATIONS; its diagnostic importance and therapeutic value. By EMIL G. BECK. Published by C. V. MOSBY COMPANY, St. Louis, Mo., 1910.

This is an interesting volume of 230 pages, well printed, and sets forth in clear and forcible manner the uses of bismuth subnitrate made into a paste with vaselin, as a diagnostic and therapeutic agent in fistulae and sinuses. There can be no question as to its diagnostic value in revealing concealed branches of fistulous tracts and determining the origin of many bone abscesses simply by use of the Roentgen ray after injecting the sinuses with the bismuth paste. Thus a sinus discharging over the hipjoint is shown to have its origin not in the hip at all, but in a sacral or lumbar vertebra.

As to its therapeutic properties the author recommends it practically for all kinds of fistulae and sinuses connected with bone or limited to soft tissues, the sequelae of empyemas and even in fecal fistulae and tuberculous peritonitis. He advises caution in intraperitoneal injections, using a ten per cent, paste, and reports two cases of tuberculous peritonitis apparently cured in this way.

To prevent poisoning he warns against the use of large injections, not more than 100 grams at first, but much larger quantities have been used without bad effects. If poisoning occurs the paste is washed out of the cavity by the injection of warm olive oil.

Dr. H. C. Beck adds a chapter on the use of the paste in chronic suppuration of the frontal sinus and antrum of Highmore, and reports Dr. Rudolph Beck's good results from its use in dentistry, especially in pyorrhoea alveolaris.

The composition of the two pastes and methods of preparation and administration are described.

The book has 81 illustrations and the text is remarkably free from errors; but one solecism, all too common with physicians, is the use of "temperature" as a synonym for "fever," seen at the bottom of page 175.

The book is well worth reading and deserves a place in the library of every surgeon.

G. T. VAUGHAN.

Pamphlets Received.

Parker Syms, "Tumor of the breast; prostatic obstruction, pyelitis; chronic appendicitis." Reprint, 1910.

D. H. Laurie, "Notes on the study of histories of lepers from the standpoint of transmission." Also D. H. Currie and H. T. Hollmann, "A contribution to the study of rat leprosy." Public Health Bulletin No. 41, November, 1910.

Joseph Goldberger, "Some known and three new endoparasitic hematodes from American fresh-water fish." Also "Some new parasitic trematode worms of the genus Telorchis." Also, Joseph Goldberger and Charles G. Crane, "A new species of athesmia (A. foxi) from a monkey." Bull. 71, Hygienic Laboratory U. S. P. H. and M. H. S., January, 1911.

T. B. McClintic, "Disinfectants, their use and application in the prevention of communicable diseases." Public Health Bulletin 42, December, 1910. U. S. P. H. and M. H. S.

J. W. Bovée, "Acute diffusive suppurative peritonitis from a ruptured pus tube." Also, "Three years of gynecology and obstetrics in the United States." Also, "The influence of the Trendelenburg position on the quantity of urine excreted during anesthesia." Also, "Deductions based largely upon a series of 70 cases of ectopic pregnancy treated surgically." Reprints.

T. A. Williams, "The treatment of 'parasyphilis' of the nervous system in the light of recent research; paresis and tabes dorsalis." Reprint, 1910.

Transactions Fourth International Sanitary Conference of the American Republics, Dec. 25, 1909, to Jan. 3, 1910, at San Jose, Costa Rica.

E. W. Caldwell, "A brief review of the applications of Roentgen rays in diagnosis." Reprint.

F. C. Walsh, "Report of an interesting case of renal calculi." Reprint. (Dr. Walsh is a member of the Medical Society, D. C., residing in San Antonio, Texas.)

L. L. Lumsden, "Report of an outbreak of typhoid fever at Des Moines, Iowa, in 1910;" reprinted from Public Health Reports, No. 56, U. S. P. H. and M. H. S.

R. M. Pearce, "The Wasserman reaction in the pathology, diagnosis and treatment of syphilis." Also, "The problems of experimental nephritis." Also, "The production of oedema." Also, "The theory of chemical correlation as applied to the pathology of the kidney." Reprints.

R. M. Pearce and A. B. Eisenbrey, "A study of experimental conditions of low blood-pressure of non-traumatic origin." Reprint. Also, "The physiology of anaphylactic shock in the dog." Reprints.

A. B. Eisenbrey, "Method of isolating the cerebro-medullary circulation." Reprint.

R. M. Pearce, M. C. Hill and A. B. Eisenbrey, " Experimental acute nephritis, the vascular reactions and the elimination of nitrogen." Reprint.

T. MacRae, A. B. Eisenbrey and H. F. Swift, " The use of pure lipoids and alcoholic extracts with active and inactive serum in the complement-fixation tests for syphilis." Reprints.

F. A. Woods, " Laws of diminishing environmental influences." Reprint.

R. T. Pettit, " Prevention of hemorrhage in pulmonary tuberculosis by the administration of autogenous vaccines." Reprint, 1910.

Worth Hale, " Digitalis standardization and the variability of crude and of medicinal preparations." Hygienic Laboratory, U. S. P. H. and M. H. S., Bull. No. 74, January, 1911.

W. H. Frost, "Acute anterior poliomyelitis." Public Health Bulletin No. 44, U. S. P. H. and M. H. S., February, 1911.

A. L. Stavely, " Chronic gastromesenteric Ileus." Reprint, 1910.

Vol. X. MAY, 1911. No. 2.

WASHINGTON MEDICAL ANNALS

FIBROID TUMORS OF THE UTERUS COMPLICATING PREGNANCY, LABOR AND THE PUERPERIUM. ABSTRACT.*

By John F. Moran, M. D.,

Washington, D. C.

The paper discussed the frequency of the condition named in the title, the clinical history, the diagnosis, the prognosis and treatment, and reported a number of cases. It concluded as follows:

Much of the morbidity and mortality is due to the failure to recognize the existence of the growths in time for elective intervention, or to faulty technic or an unsuitable operation. Seventy-five per cent. of the fibroids are located in the upper uterine segment, are often overlooked and rarely cause serious difficulty during pregnancy or labor; but tumors of the lower segment do often cause complications and sequelae that require an operation. Hysterectomy during pregnancy compares favorably with hysterectomy in the absence of pregnancy. Myomectomy gives greater mortality during pregnancy because it increases the danger of abortion, hemorrhage and infection. Myomectomy is the operation of election during the child-bearing period; hysterectomy is preferable for cases nearing the menopause and when further pregnancies are inadvisable. Extraction of the child by forceps or by version when the tumor is in the lower segment is very dangerous and gives a high mortality. Artificial abortion and induced premature labor are unwarranted; they sacrifice the child and do not improve the chances of the mother. Curettage, either post abortum or post partum is irrational because the irregularity of the uterine cavity makes a thorough removal of the debris impossible. Since pregnancy disposes to degeneration of fibroids, therefore the tumor should be removed as soon after delivery as expedient. The mortality from the operations for removal of fibroids has decreased during the last 20 years from more than 30 per cent. to less than 10 per cent., and many surgeons have a rate as low as 3 to 5 per cent.

* Read before the Medical Society, January 25, 1911.

Dr. Stone said that the essayist had made an appropriate statement of the possible complications by uterine fibroids in pregnant women. Their location, as he had shown, had much to do with the difficulties which arise from their presence. Authors differed as to whether fibroids increase or diminish in size during the pregnant state. Emmet taught that they diminish, while nearly all recent writers agree that they at least temporarily increase in size. The essayist assumed a congenital origin of these growths. It has been supposed by some that heredity plays a part in their origin, but we cannot find proof that any one of the theories advanced is the correct solution of the problem. Certainly the great frequency of fibroids in the negress is not explained by either of these theories. Pregnancy causes an "increased growth." Why not say an apparent growth, by reason of increased blood supply? Are there not other reasons for this rapid growth of the tumor? There is abundant room for the wildest speculation as to possible causes for this growth. Why may not the development of the sincytium, that mysterious and potent factor, have some as yet unknown influence upon the tumor, as it has upon other structures? Fibroid tumors disappear, as the essayist says, and they may disappear in some manner as yet unknown, but Dr. Stone now wished to take into consideration some of the conditions which may be in part due to an effort of nature looking toward ultimate removal, and which may prove most serious difficulties in the way of easy and successful delivery. The degenerations possible in the fibroid tumor of a pregnant woman constitute a formidable danger not only to one life but more than one. These changes are always accompanied by pain, but pain does not always indicate such serious conditions, although its presence is full of significance if not explained by appendiceal inflammation or else due to threatened abortion or miscarriage. In a recent case in Dr. Stone's hospital service the patient suffered severe pain both before and after the abortion occurred. The tumor he now exhibited showed the presence of marked degeneration of certain portions of the growth.

Myomectomy should not have any influence upon the fetus, *per se*. As the essayist had shown by reference to the literature, the accidents resulting from interference with the contents of a pregnant fibroid uterus should cause us to proceed with the utmost caution. It had been shown that adherent placentae are of comparatively frequent occurrence and are attended with high mortality. So it is with other matters, such as the comparatively simple operation of emptying the uterus at any period of gestation; here it becomes a very serious matter. Such operations as podalic version, or high forceps extraction, are attended by a very high mortality.

In fact, the sixth conclusion of the essayist leaves all cases of fibroid associated with pregnancy to elective abdominal section,

preferably at term. By some this may, of course, be considered a strong statement, but it must be remembered that allowance is not made for situations which may render the attendance of skilled assistance possible. The same may be said of the seventh conclusion; curettement may be best, under existing circumstances, although not preferable from a technical standpoint.

In Landau's paper we find an unusually large number of cases where pregnancy occurred in women having submucous fibroids. A reviewer regards the presence of the fibroid as the cause of the sterility, and the associated tubal disease as a secondary result of the presence of the growth. Strangely enough the generally accepted opinion is favorable to the conclusion that sterility is a marked and extremely common result of uterine fibroid, but personally Dr. Stone did not agree that this was capable of demonstration.

A few words as to the types of degeneration most frequently seen. In the submucous tumor we find the greater number of acute septic conditions. These are, of course, due directly to trauma and infection. A pedunculated fibroid may be partly or wholly separated from its attachment within the uterus, giving opportunity for microbic mischief, thrombophlebitis, etc. Edema and hemorrhage may occur, or infarcts and gangrene.

The "red degeneration of Fairbairn," now frequently mentioned in the literature of this subject, is a variety of necrosis, or "necrobiosis," and is seen most frequently in pregnancy with fibroids; perhaps more than two-thirds of the cases are found in this class. The characteristics of these cases had been well described by the essayist, and Dr. Stone could only endorse the description and commend the conclusions.

Dr. J. Taber Johnson said that the effects of the presence of uterine fibroids on pregnancy, labor and the puerperium might be stated dogmatically as follows: 1st, the effects of fibroids on pregnancy; 2d, of pregnancy on the fibroids; 3d, of fibroids on labor; 4th, of fibroids on the puerperium, and 5th, the indications for treatment.

Over 50 per cent. of myomatous women are sterile from this cause alone; we are therefore fortunately called on to treat only a small proportion who suffer from fibroid complication. Accumulating evidence, however, demonstrates that the coexistence is more frequent than we have heretofore been taught. If the fibroid is attached to the fundus of the uterus or is subperitoneal, little or no trouble need be feared. If it is interstitial and encroaches on the uterine cavity we may expect malposition of the fetus, placenta previa, or pain and interference with uterine contractions, and hemorrhage during labor and abortion. If the fibroid is submucous we may expect abortion, hemorrhage and sepsis. If in or about or above the cervix it may prevent delivery at full term altogether, or cause rupture of the uterus; or,

if the infant is delivered by surgical intervention hemorrhage and sepsis are likely to follow. If infraligamentous or infrapelvic, and cannot be pushed up out of the way, it may cause all the troubles already stated. Small fibroids, attached high up and with long pedicles, may cause all the dangers, if they should become displaced low down in the pelvis, unless they can be dislodged by digital manipulation. Fibroids have been charged with causing extrauterine pregnancy, undiscovered, however, until rupture occurs.

The influence of pregnancy on the fibroids may be stated as follows: Pregnancy causes their more rapid growth because of increased vascularity of the uterus. It may cause their impaction in the pelvis and subsequent adhesions with much pain. The infraligamentous variety may cause intolerable pain by their being crowded against the pelvic tissues and organs, causing necrosis and sloughing unless promptly relieved by operation. Submucous and cervical fibroids may be crowded or expelled into the vagina; and such tumors have been safely removed. Peritonitis and sepsis may be caused by the necrosis and sloughing of a fibroid, the circulation in which has been disturbed by pressure either inside or outside the uterus, or by a twist of its pedicle.

As to the influence of uterine fibroids on labor, if they are small and high up or large or subperitoneal, little or no trouble may be expected. If situated in the pelvis, both large and small tumors may so interfere with delivery as to require surgical intervention, unless, as labor progresses, we are able to push them up out of the way. Large cervical and submucous fibroids may get in the way of the presenting part and thus make natural delivery impossible, and require a Caesarean section or hysterectomy to save the lives of both mother and child.

Fibroids may complicate the puerperium by causing hemorrhage by their interference with uterine contractions or by sloughing by compression during labor, or sepsis, from absorption of putrid and infectious material. The patient may also be exposed to the dangers of various surgical procedures instituted for her relief; all of which have a morbidity and most of them a mortality of their own; but when resorted to because of uterine fibroids that interfere with delivery there are added dangers peculiar to the situation. Davis, of Philadelphia, says that this complication at times raises most troublesome, appalling and dangerous questions, that may require the most experienced judgment and operative skill in the surgeon. Not the least of these dangers is an unwise and unnecessary intervention, otherwise known as meddlesome midwifery.

As to treatment we should first consider a safe and convenient environment for myomatous pregnant women in the latter months, where they can be intelligently observed and in the absence of symptoms be left entirely alone, no operation being done simply

on account of the presence of the tumor. The question of emptying the uterus should rest with competent consultants. In the case of tumors that are likely to interfere with delivery and which can be safely reached through the vagina, the uterine cavity should not be invaded. Such obstetrical operations as may be indicated in the course of labor, the use of forceps, version, embryotomy and the combination of outside abdominal and inside vaginal efforts to push movable tumors out of the way of the presenting part, should be done through the vagina. Abdominal operations may be done as indicated: myomectomy, Caesarean section, the Porro operation, or supravaginal hysterectomy.

He disagreed with Dr. Moran, who placed myomectomy as the operation of election and argued in favor of applying the same rules for this operation during pregnancy as in the non-pregnant state, with special reference to their variety, number and location. He also opposed the opinion of the essayist and Dr. Stone that these tumors are not sometimes absorbed after delivery, or that they undergo an involution similar to that of the enlarged uterus during the puerperium. He mentioned several cases in which he believed that this absorption or involution occurred, because no sloughing or unusual discharge was noticed, and the tumors became much smaller or entirely disappeared.

Dr. G. Brown Miller wished to touch upon only one phase of the subject. He had encountered several cases in which uterine fibroids complicated pregnancy, producing symptoms which demanded treatment, but what to do had been difficult to decide. He had recently in the Clinico-Pathological Society exhibited a uterus full of fibromata, and with a fetus *in situ* in its membranes. The symptoms were those of inevitable abortion, and the pain had been very great; he had therefore removed the uterus. There had been some criticism of his course in this case and he asked Dr. Moran to speak on this point.

Dr. W. P. Carr said that the diagnosis of uterine fibroid during pregnancy, and the differential diagnosis between fibroids and pregnancy, may at times be very difficult. He related two cases illustrative of this point. He took issue with Dr. Taber Johnson's statement that large fibroids are not dangerous; one of the cases cited by Dr. Moran refuted Dr. Johnson's opinion. While large tumors situated high in the body of the uterus may not be dangerous as a cause of dystocia, still they may be degenerating, and so cause serious postpartal complications, such as infection, sloughing, etc. In most cases of large fibroid tumors, also, there will be found much gelatinous material in the abdomen which may be productive of mischief.

Dr. Moran said that the specimen exhibited by Dr. Stone illustrated very well not only red degeneration but mucoid degeneration. Red degeneration is said to be due to the diffusion of blood pigment through the tumor tissue. His own advocacy of

myomectomy in these cases was limited to those in which this operation "is feasible," and where it is desired to preserve the capacity to bear children. As to the disappearance of fibroids by absorption he hardly liked to take issue with Dr. Taber Johnson on this point, but the possibility of this taking place is very doubtful. It has been pointed out by competent authorities that in some cases the uterine fibroid may be palpable only during pregnancy.

In reply to Dr. Miller's question he said that whether the operation done by Dr. Miller was justifiable or not depended upon one's religious scruples, and therefore was a matter of opinion. The teaching of the Catholic Church is that it is not justifiable to take life directly in order to save life; if life is lost as an indirect result of an effort to save life such effort is justifiable.

GEORGETOWN MED. COLL. MAR 4 1915 LIBRARY

THE RESULTS OF TREATMENT AT THE STARMONT [TUBERCULOSIS] SANATORIUM.*

By Geo. M. Sternberg, M. D., LL. D.,

Surgeon General U. S. Army, Retired.

CATALOGUED MAR 4 1915

It is now a little more than five years since the first patient was received at Starmont Sanatorium, and I propose, this evening, to give an account of the results of the "open air" treatment at this sanatorium from the opening of the institution to January 1, 1911. It seems fitting that such a report should be made to the Medical Society of the District of Columbia, as many members of this Society aided in financing the project at the outset, and several are included in the Board of Directors of the Sanatorium Company. Nearly every State on the eastern seaboard now has a tuberculosis sanatorium, and I hope you regard Starmont Sanatorium, as I do, as the special sanatorium for the District of Columbia. Since it was opened the States of Maryland and Virginia have established sanatoria, and Congress has provided the means for building a tuberculosis hospital in this city. It is now generally recognized by students of preventive medicine that segregation of infected individuals in sanatoria and hospitals is the most potent factor in limiting the spread of tuberculosis. And the great reduction in mortality from this disease, which has been noted during recent years, in many sections both in this country and Europe, is no doubt to a large extent due to the increased facilities afforded by the large number of such institutions which have been established for the care of tuberculosis patients. According to a recent report of the National Association for the

* Read before the Medical Society, February 1, 1911.

Prevention of Tuberculosis nearly $15,000,000 was expended for anti-tuberculosis work in the United States during the year 1910, and the amount of public money appropriated for this purpose was more than twice as much in 1910 as in the preceding year.

As Starmont Sanatorium receives no public money and has no endowment it has been necessary to make it self supporting. The terms were fixed at the outset at the very moderate rate of $10 per week for incipient cases, and have not been raised, although the per diem expense for food is considerably greater than it was five years ago. It was hoped that this sanatorium would prove a boon to many persons in the city of Washington, suffering from incipient tuberculosis, who could not afford to go to more distant localities for treatment, and it has done so for a limited number, but our statistics show that the number of "incipient" cases admitted is less than half as many as the number of "moderately advanced" cases and is exceeded greatly by the number of "advanced" cases. Our experience is similar to that of other institutions that do not adhere strictly to the rule of admitting only incipient cases. There are several reasons for this. One is that incipient cases often do not apply for treatment, and many patients are moderately advanced before they come under the observation of a physician. Again, the incipient cases are often reluctant to give up their business, and in many cases cannot afford to pay for sanatorium treatment. And, I am sorry to say, in no inconsiderable proportion of the cases the physician either fails to recognize the disease in its incipiency, or hesitates to give it a name out of regard for the patient's feelings. This I consider not only a mistake, but almost a crime. The patient is entitled to know that he has a serious infectious disease, which is commonly curable in its early stages, but is still one of the most fatal of diseases when it has progressed beyond a certain point. It is well that the patient should be frightened and made to realize that the time to take the open-air treatment is immediately after the nature of his disease has been recognized. He should be given every opportunity to overcome the infectious process which has been established in his lung, and certainly he is not given the best chance of recovery if he is allowed to continue his usual occupation, or, even if he discontinues this, to take the "home treatment."

Treatment at home, under the direction of a competent physician, is far better than to ignore the seriousness of the disease. But the restraints and constant supervision to which the patient is subjected at a sanatorium give him a much better chance for speedy and permanent improvement. The patient often feels well enough, although he may be losing flesh and may have a daily rise of temperature. If at home he has a thousand temptations to overtax his strength or to fail to carry out the instructions of his physician. Moreover, the country air is undoubtedly bet-

ter than city air, and at the sanatorium the patient not only escapes many temptations to imprudent acts, but escapes the dangers from an attack of grippe, or pneumonia or a severe bronchitis, any one of which may turn the scale against his chances of recovery. I consider an attack of grippe a very serious matter for a patient suffering from tuberculosis in any of its stages. The doctor who is supervising this "home treatment" of a case cannot be sure that his directions are being carried out. The attractions of shopping, of the theater, of the billiard hall, of the cocktail, etc., are often too great to be resisted, and it is hard to avoid overheated rooms in the daytime even if the patient sleeps in a room with open window.

I quote now from the last report of our resident physician, Dr. John H. Lindsey. A review of cases admitted since the opening of the institution in the fall of 1905 shows the following facts: Total number of cases admitted, 311; in 8 of these cases the diagnosis of tuberculosis was not confirmed; in 3 cases the form of tuberculosis was non-pulmonary; of the other 300 cases 76 remained less than one month—a period usually too brief for the establishment of definite improvement; such cases, therefore, are not included in the general tabulation of results given below.

Of the 22 deaths which have occurred since the Sanatorium was opened 8 took place within one month after admission and 7 in from one to three months. The admission of cases in such an extreme condition shows the liberality of the institution in the reception of advanced cases. In accepting such cases, however, it is believed that a beneficent function is performed, as it is especially the advanced cases that are a menace to others when treated in the home. While there are many sanatoria for incipient cases there is a great need of institutions for the more advanced cases.

The Samuel Berliner Infirmary has been of indispensable assistance in the treatment of advanced cases.

The conditions and results in the 224 patients who were in the institution for one month or longer are shown in the following table:

	Incipient.	Moderately Ad.	Advanced.	Totals.
Apparently cured,	5	0	1	6
Arrested, . . .	14	10	1	25
Improved, . . .	28	67	36	131
Unimproved, . .	2	13	33	48
Died, ...	0	0	14	14
	49	90	85	222

This table shows improvement of greater or less degree in 95 per cent. of the incipient cases; in 85 per cent. of the moderately advanced cases; in 44 per cent. of the advanced cases, and in 72 per cent. of all the cases that remained one month or longer.

Dr. J. D. Thomas said that a report of the kind presented by Gen. Sternberg was valuable in that it presented to the local profession the results that may be obtained in a local institution; this is one of the most important points in the treatment of tuberculosis that have been developed by recent experience, viz: that climate *per se* is not a very important factor in the therapy of tuberculosis. It has not been many years since it was considered heretical to keep a tuberculous patient in this latitude. The figures given by Gen. Sternberg and the reports of other institutions in this latitude compare very favorably with the results obtained in sanitoria elsewhere. The results at the District Tuberculosis Hospital are also good, especially with incipient cases, but this class of cases unfortunately composes only a small proportion of those admitted. The results obtained in this city in private practice are also very excellent, when the patient can be kept entirely under control, as was shown in many of his own patients.

Fortunately the day is passing when medical men fail to recognize the early symptoms of tuberculosis: it seemed to him that there is great alertness on the part of the physicians of this city in recognizing and treating cases in the early stage, and of the laity in demanding such recognition. As to the advisability of tuberculous patients going back to their accustomed work, it seemed no question to him that when they can be brought to a condition to perform their accustomed work, they do best at that work unless it happens to be in a dusty atmosphere, or under other absolutely insanitary conditions. The temperature and ventilation of the workroom by day should be carefully adapted to the patient; much harm may result from working in a hot, stuffy room all day and then going into a wide-open cold room to sleep at night.

Statistics prove the destructive effects upon the quality of gross results when it is attempted to treat both incipient and advanced cases in the same institution. The methods to be pursued are so different in the two classes of cases that they should by all means, if possible, be separated. One great advantage of sanitorium care is the instruction it gives the patients; after a few months spent in a well-run sanitorium they learn how to live within the limitations of their particular handicap, how to protect themselves and others, and, what is a very potent factor for them and the community in which they live, they learn that consumption is in many cases curable.

Dr. Claytor said that Gen. Sternberg had emphasized the fact that it is the early cases that improve under sanitorium care. It is only the early cases that may be cured permanently; the more advanced cases, although they may be arrested, almost invariably relapse after a few years. There are some early cases that do not present any physical signs in the chest; such patients should

get a thermometer and use it regularly for a week, should be weighed regularly once a week and should have frequent examinations of the sputum. An early symptom of great importance is the inability to endure sustained effort. He spoke of the use of tuberculin for diagnostic purposes, referring only to the subcutaneous use of Koch's old tuberculin. The technic is not difficult and the results are not to be feared when the tuberculin is administered in proper dosage. The patient should be under absolute control; the temperature should be taken every two hours for three days preceding the test; the injection should be made early in the evening so that observations for the reaction can be made in the morning, the reaction, if any, appearing in from ten to twenty hours, although it may be delayed in some cases. The dose at first should be 0.0006 gm., and if no reaction occurs the amount should be gradually increased to 0.01 gm.; it is not often that a non-tuberculous patient will react to less than 0.01 gm. of tuberculin. If after two or three days there has been no reaction the investigation may be carried further by using a somewhat larger dose of tuberculin. The occurrence of a reaction is no criterion as to the location of the tuberculous lesion, unless by chance the reaction is accompanied by local reaction which may be recognizable.

Dr. Gwynn said that Gen. Sternberg was to be congratulated upon the results that he had been able to show for Starmont Sanatorium, and also for calling attention to the futility of expecting very much from a climatic change. The statistics of all sanatoria in all parts of the country are about the same. It was Flick who, in 1906, stated that climate was not only not necessary for the cure of tuberculosis, but that it is not even a factor. This occasioned much criticism, but it is now an accepted doctrine. The expense of securing climatic change is a factor of great importance and one which makes this feature of the treatment of tuberculosis beyond the reach of the majority. The temperament of the patient is an important factor when for any reason it seems desirable to send him away from home. Nostalgia is recognized as one of the insuperable hindrances to improvement in some cases at sanatoria; indeed, such attention is paid to the maintaining of good cheer among the patients that at some places no funerals are allowed and no crape may be displayed on the door. The condition of the patient's lungs also should have great weight in determining the question of sending him away; it is not necessarily the degree of advancement of the disease, but the capacity of the patient to adapt himself to new altitudes, etc. It is the quintessence of cruelty to send patients in the third stage anywhere. Climatic treatment, after all, is essentially fresh air—and that may be secured anywhere. There is, of course, some tonic effect of a change of environment, but this is mostly due to the change from an indoor life to a life out of doors.

Dr. A. F. A. King said that it interested him to hear of the treatment of cases in which no tubercle bacilli are found. Such cases led him to speak of a theory that he had long entertained, viz: that tuberculosis is due to the fact that our lungs are too big, that they are not adapted to the sedentary lives that civilization has entailed upon us, and that the deposit of fibroid tissue in the lungs is an effort of nature to limit this undue size of the lungs. This conception leads to the conclusion that such patients need an abundance of exercise and fresh air; the exercise also should include vocal exercise, such as singing, talking and laughter, so as to stir up a great deal of vocal fremitus. Dr. Gwynn had spoken of the ill effects of gloomy emotions upon phthisical patients, and everyone knows that damp, dark, cloudy weather depresses the spirits of men, so that they sit literally in "breathless suspense;" such patients should not be allowed to remain in vocal silence, but should be got out into the air where they may sing, talk, laugh or shout, and they should be kept cheerful, with enough good wine now and then to keep up a mild exhilaration. Solitary confinement in prisons is the ideal condition for producing the habitual restricted respiration that leads to the development of tubercle in the non-expanded air vesicles. The condition involves muscular indolence, vocal silence and mental depression.

Dr. Ramsburgh had come in too late to hear the paper, but had much enjoyed the discussion. It seemed desirable to say for Starmont Sanatorium that provision has been made to care for advanced cases; such patients can now be made very comfortable, and the results so far have been very good.

As to the use of tuberculin for diagnostic purposes, the only efficient test is with Koch's O. T. Patients with a tendency to hemorrhage should not, however, be subjected to it.

Dr. Kinyoun said that it seemed to him that there is a recognizable transitional stage between what is ordinarily known as the initial and the second stages. His criticism of practitioners is that they ordinarily wait too long to submit specimens for bacteriologic examination; if such examinations are of any avail they should be employed in such a way as will detect the greatest number of cases at the earliest moment. A clinical point worth mentioning is that in many somewhat doubtful cases in which the bacilli have been uniformly absent from the sputum an intercurrent attack of influenza seems to light up the process in such a way that the tubercle bacilli appear in the sputum. By an improvement in the technic employed at the District Laboratory he is now able to make very many thorough examinations of sputum in a limited time; it seemed desirable, therefore, to urge practitioners to send specimens for examination even in the most doubtful cases, and especially cases which have passed through attacks of grippe, so that the bacilli may be found early. The

technic employed by him is the concentration method of Uhlenhuth, and the method is not only time-saving, but it has served to show the presence of the bacilli in many more samples of sputum than were discoverable with the older technic.

Gen. Sternberg had been interested in the discussion, for which he expressed his thanks. Dr. Thomas had referred to the advisability of arrested patients returning to their accustomed avocations; with this opinion Gen. Sternberg concurred; his remarks had reference to the tendency of patients to insist upon returning to their occupations before the arrest of the tuberculous process is confirmed; relapses almost invariably follow such a course. It had been the intention at Starmont to take only incipient cases, but circumstances had been such, and the necessity had been so apparent, that the authorities had no other course than to make proper provision for advanced cases. Such cases cannot be properly cared for in tents, and to meet the necessity Mr. Emile Berliner had given the institution an infirmary; but another is now needed. Three of the nurses at the sanatorium are arrested or cured patients. The patients live in cottages or tents; they are as a rule happy and cheerful, and have as much vocal fremitus, according to Dr. King's prescription, as is good for them, sometimes more than is desirable. Every case in the institution must observe the rest hour between 2 and 3 P. M.; this is insisted on. During the rest of the day such exercise as may be proper in each case is allowed.

REVIEW IN SURGERY.*

By Wm. A. Jack, Jr., M. D.,

Washington, D. C.

The year 1910 has been a busy one in the surgical field, and while nothing revolutionary has been done, many new procedures and modifications of older ones have been presented to the profession.

Iodin disinfection of the skin has been worked out so that today in many large clinics it has entirely supplanted the older and sloppy method of preparing the field of operation.

Meltzer's forced ventilation of the lungs by means of a catheter passed to the tracheal bifurcation has solved the problem of intrathoracic surgery, so that it is no longer necessary to rely on the cumbersome apparatus of Sauerbruck for inducing negative pressure. Great credit for this belongs to Fell, who, in 1896, brought forward an apparatus with a two-way tube for intubation

* Read before the Medical Society, February 8, 1911.

through which an anesthetic could be administered, and by means of a foot-bellows positive pressure be produced in the lungs after opening the chest. Elsberg and Letenthal both report operations on the human lung under this technic.

Guthrie, of Pittsburg, has successfully transplanted the parathyroid in dogs. He also removed the ovaries from a black fowl and implanted them in a castrated white fowl; the white fowl was then mated with a white cock and laid eggs that hatched into black and white chickens. Much interesting work in the autotransplanting of organs has been done by Carrel, of New York, and others.

Bloodvessel suture, thanks to the work of Carrel, Guthrie and many others, is now an established procedure. Many ingenious devices, plates and magnesium rings, have been brought forward to aid suture operations, but Horsley, of Richmond, sums the subject up very well when he compares it to the early days of intestinal surgery with its many different kinds of buttons, bobbins, rings and plates which have all been supplanted by the simple suture.

Several different intestinal sutures have been presented in the past year, but only one seems to meet any requirement that is not already well filled by those in common use, and that is Lahey's improvement on Turk's interlocking suture for side-to-side anastomosis, which in turn is a modification of Halstead's mattress suture.

Jackson, of Mississippi, presented at the Atlantic City meeting his modification of Meyer's extirpation of the cancerous breast, first brought out in 1906. Now that this method has received the approval of the Mayo clinic, many operators are adopting it.

Wirelius and Moorehead, of Chicago, have proved on monkeys that it is possible to expose half of the brain by one large osteoplastic flap without any ill results. In this connection it is interesting to note the report of Karplus and Kreid, who, by packing cotton between the skull and the base of the brain in four monkeys, have been able to reach the midline without subsequent symptoms.

Hoffman, of Leipsic, by resecting the soft palate and turning it forward, was enabled to attack a tumor at the base of the brain.

Elsberg, of New York, brings forward a twostep operation for intramedullary spinal cord tumors. The first step was opening the canal and dura, the soft parts were then sutured. One week later the wound was reopened and the tumor had worked itself out extradurally in large part and was then removed without danger to the cord.

Krause brings out a good point in regard to incising the dura

after one lamina has been removed. When a small puncture is made in the dura the spinal fluid will spurt if the puncture is cephalad to the tumor, on account of increased tension, and will only ooze if caudad, giving a good guide as to the direction in which more laminae should be removed.

The vexed question of a safe anesthetic is still with us and much has been written on the subject. Burhardt, of Germany, uses intravenous injection of from 200–800 c.c. of a 5 per cent. solution of chloroform. He reports some good results, but he precedes his injection by the administration of scopolamin and morphin. Other Germans are not enthusiastic about the method, reporting many failures to secure satisfactory narcosis and the frequent occurrence of venous thrombosis.

Thomas, of Yale, has brought forward a perfected apparatus for rectal anesthesia. This method was first used by Pirogoff, of St. Petersburg, about 1847, and by several French surgeons about 1884; in selected cases and with Thomas' apparatus it offers many advantages for operations about the head and throat. The use of spinal anesthesia is now decreasing on account of the many unfavorable sequelae and the high immediate mortality, 6 in 1,000.

Collins, of Peoria, Ill., reports a series of 1,150 cases without a death under scopolamin and morphin with ether. Debet and Dupont, of Paris, do not think much of scopolamin and morphin anesthesia, but their trouble seems to be too large dosage, as they consider 1/64 gr. of scopolamin a small dose.

The advisability of removal or drainage of the gallbladder is still a subject of controversy. Moynihan in an instructive article advocates the removal of the gallbladder with drainage of the common duct in cases of obstruction. In 250 cases of gallbladder disease from Braum's clinic that have been traced for thirteen years, removal gave the best results. McArthur, of Chicago, advocated the infusion through the drainage tube into the gallbladder of large quantities of salt solution by the drop method instead of putting it into the rectum.

The drainage of the bile and pancreatic ducts in cases of pancreatic glycosuria has given good results in the hands of Robson.

The prevention of postoperative adhesions has been studied by Crump, of New York, and Wilkie, of Scotland, who put large quantities of sterile oil into the abdomen and report good results. There is a little more postoperative disturbance with the oil than without but no delay in convalescence.

Pettyjohn, of the U. S. Marine Hospital Service, has brought forward an improved technic for appendectomy consisting of an incision through the outer margin of the right rectus muscle and drawing the appendix through a stab wound located directly over its base.

Floris, of Italy, taps tuberculous peritonitis cases, drains off

the fluid and injects an equal quantity of air. In three cases this has given perfect results, the air being absorbed in three weeks.

Ochsner, of Chicago, in an article on arthritis deformans shows good results in early cases by removing sources of chronic irritation, such as diseased appendix, hemorrhoids, etc. In advanced cases he mobilizes the joint under anesthesia and puts it up in a position of physiological rest. That strange disease infantile hypertrophic pyloric stenosis has received much attention at the hands of surgeons of various nationalities. Treatment has varied between Lorreto divulsion and posterior gastro-enterostomy. Weber, of Berlin, reports fourteen cases treated by vertical incision and transverse suture, thus widening the pyloric opening.

Carrel has succeeded in growing fowl and human sarcoma outside the body on plasma medium. Hodenpyl, of New York, reported good results in the treatment of carcinoma by injection of ascitic fluid from a patient with a healed carcinoma. Vaughn, of Detroit, has done a good deal of interesting work with a residue made from the patient's own tumor and injected to prevent recurrence and relieve pain. But with all the patient work by many investigators the cancer problem is not yet solved and the best hope still of the unfortunate host of a malignant growth is early and free use of the knife by a competent operator.

Dr. Balloch wished to speak on two topics: (1) The conquest of the chest for surgical invasion. This was the last of the regions of the body to be got at, but under modern conditions surgeons have no hesitation in entering this cavity.

(2) Cholecystectomy versus cholecystotomy with drainage; the first operation does not give the best results. The key to successful gallbladder surgery is proper drainage; those who insist upon taking out the gallbladder in every case will sooner or later meet with difficulties which might have been avoided if the viscus had merely been incised and drained.

Dr. W. P. Carr said that to him the paper had been most entertaining and instructive. With regard to cholecystectomy, to which operation Dr. Balloch had referred, Dr. Carr had never missed an opportunity to oppose those who advocate this measure. He was glad to know that there is a tendency to abandon the operation. The gallbladder, in his opinion, should be left in unless there is some malignant disease or such destruction of the organ as to make it dangerous to leave it. As to the possibility of exposing half of the brain in monkeys, he had himself exposed half the brain in man, and this may be done without danger.

Dr. I. S. Stone said that the review had been silent upon two or three points that are of interest: (1) The device of liberating the colon from its attachments at the splenic flexure in order to get greater length of bowel in anastomosis procedures after removal of portions of the descending colon or sigmoid for cancer,

should receive mention. (2) The pioneer work that is being done by men like Martin, of this city, Clarke, of Philadelphia, and Smith, of Grand Rapids, Mich., in the field of surgical relief of constipation due to anatomic defects, is of utmost importance. Here is a new field opened up for gynecologists and abdominal surgeons. (3) Of interest also is Kelly's device, namely, the use of a dilatable rubber bag to distend the bladder in suprapubic operations upon that viscus.

Dr. Stone was inclined to defend the operation of cholecystectomy, although the subject is a debatable one and not yet settled. It has been argued that stones may be found in the stump of the cystic duct after this operation; this will not happen if the cystic duct is taken out freely and properly with the gallbladder. He could see no good reason for leaving a torn and ragged gallbladder within the abdomen.

Dr. Vaughan said that it seemed to him safest to occupy a middle position in the matter of cholecystectomy; gallbladder surgery requires that every case shall be considered by itself. The gallbladder should be left in when possible; but it should none the less be removed when proper. He finds himself taking out more and more of them. The main reason for leaving it in is for some future use of it if necessary, as in cancer of the common duct. He is rather inclined to the belief that there is usually atrophy of the gallbladder after cholecystotomy anyway.

Dr. Tom A. Williams commented upon a case of subdural tumor of the spinal cord which had been referred to in the paper. When such a tumor has reached such a size that it fills the dural sac, it is too late to operate, for spinal fibers have been destroyed and they cannot be regenerated. The operation in this case should have been done long before, when such a tumor had already given rise to symptoms which make the condition recognizable, if the sensibility and reflexes are properly explored. A case seen with Drs. Claytor and Dunlop is an instance.

Dr. Jack said that Moynihan recommends removal only of diseased gallbladders, and before removal it must be accurately determined that the hepatic and common ducts are patulous. This does not depend upon palpation; for by rotating the liver the whole tract may be inspected. Coffey has worked out in dogs the problem of making a new common duct, having successfully done this by sewing a portion of the duodenal wall over rubber tubes. The workers in brain surgery in monkeys, the reference to whose work Dr. Carr had commented upon, had used not only lateral flaps, but had resorted also to frontal and occipital flaps.

REVIEW OF INTERNAL MEDICINE.*

By Philip S. Roy, M. D.,

Washington, D. C.

Of Washington physicians, Barton has given us a point I think of great therapeutic value in his finding that hexamethylenamin is eliminated in the secretions of the middle ear. Personally I believe that in cases of grippe I have shortened very much the stage of suppuration in middle ear inflammations by the use of hexamethylenamin.

Claytor and Merrill have given us one of the best papers of the year on orthodiagraphy in pathological conditions of the heart and aorta. This is one of the newer methods of diagnosing pathological conditions of the heart, and with many others it has made many advances in the last year.

Williams has written many valuable papers during the year. I will only mention his paper on *facial spasm* and *tic torticollis* and his original paper on the psychic analysis of *writer's paralysis,* and through it a method of cure; also his paper on *parasyphilis,* which is supported by other papers of his along that line showing that parasyphilis is a misnomer and that it is in reality syphilis. Nichol's paper on *vaccine therapy* before the Medical Society of Northern Virginia, was very complete and added many points of interest and value to our knowledge of vaccine therapy, while his paper on the *digestion of foods in fevers,* showing that the absorption of proteids, fats, and carbohydrates is nearly normal in fever, leaves but little to be added to that subject. Thomas and Behrend, I am informed, have successfully treated a case of *pellagra* in the Georgetown University Hospital.

I regret very much not being able to mention more Washington physicians in connection with my review of medicine for 1910. I have no doubt that there are many valuable papers that, unfortunately, have not been brought to my notice.

The Hygienic Laboratory of Washington, under the direction of Anderson, has made some valuable additions to medical knowledge in the last year. The bacillus of *leprosy* has been grown, and Anderson feels that there will soon follow a diagnostic and probably a curative serum. *Paratyphoid* fever has received great attention from the same laboratory in the last year. The results of these investigations convinced Anderson that many so-called cases of ptomaine poisoning are but attacks of acute paratyphoid infection. In two instances in New Jersey, where a large number of persons were made sick at gatherings where food was furnished and where all of the usual clinical features of ptomaine poisoning were found, Anderson found the paratyphoid bacillus

* Read before the Medical Society, February 8, 1911.

was responsible for the condition. Several cases in the last year of supposed criminal poisoning have proved by investigation to be only acute paratyphoid infection. Anderson in the last two months has found in so-called abortive cases of *poliomyelitis* that the blood in these patients possessed antibodies sufficiently strong to bind the toxins of the cord from a poliomyelitis monkey so completely that no infection could be conveyed to another monkey.

Typhus fever has been investigated most carefully by the Hygienic Laboratory this year. The result of these investigations has proved beyond a doubt that the body louse conveys the disease from one patient to another.

Anaphylaxis is still being carefully observed and weighed by the same laboratory, Anderson in the last year finding additional proof that in the case of a child or adult who receives antitoxin serum, and who has had or has at that time any symptoms of asthma, the family should be notified of the danger of injection in such cases, because a fatality might occur. All persons who are made nervous by horses and always feel uncomfortable when near them are also hypersensitive to the horse serum in antitoxins.

The Hygienic Laboratory strongly supports the recent views that *typhoid vaccines* are practically of no value in the treatment of typhoid fever. As a prophylaxis they are, without doubt, almost complete. Anderson thinks that mild cases of typhoid fever can be rendered more virulent by the introduction of typhoid vaccines. In this city Nichols, last year, and Behrend, this year, have used typhoid vaccines, and I believe they are both of the opinion that these vaccines have no curative value. The immune vaccine for *bubonic plague* is undoubtedly of great value, but in cases where the persons have reached the prodromal stage of plague before the vaccine is given, the attack is not only not prevented but is made very much more severe.

With all the investigations that have been made during the last year, nothing new has been added to our knowledge of *pellagra,* except that doubt has been thrown upon the general belief that musty corn meal is the cause of it.

Disturbances of Internal Secretion.—This interesting subject has been more carefully reviewed by Osborne, of New Haven, and most of my remarks on this subject are drawn from his paper. We are all familiar with the fact that exophthalmic goiter, cretinism, and myxedema are all due to pathological conditions of the thyroid, and we should never lose sight of the thyroid in cases of hysteria and mental disturbances, also disturbances of nutrition and toxemias due to disturbed nitrogen metabolism. I have seen a most interesting case of tachycardia in a girl of fourteen that I felt certain was of thyroid origin; the establishment of the menstrual function entirely cured the case. The uncomfortable symptoms at the menopause, hot flashes, sweatings, restlessness, and

mental disquietudes, are all due to an increased thyroid secretion. If the thyroid does not act properly at the menstrual period, or if through its improper action menstruation does not occur, not only may violent headaches and other signs of toxemia appear, but epileptic attacks may develop. The proper administration of the thyroid substance or extract will generally cause menstruation to become regular and normal, and will often prevent headaches and frequently prevent epilepsy.

Belfield, of Chicago, in a case of retrograde puberty, atrophy of the testicles, loss of beard and of hair in the axilla and on the pubis, with loss of sexual power, gave suprarenal substance containing both cortical and medullary tissue. After four months the hair returned and sexual power was partially restored. In this connection I will say that there seems to be no doubt, clinically, that suprarenal extract by the mouth does produce physiological action. I will not go further into the question of the internal secretion of the suprarenal, but the part it plays in metabolism is of widespread importance and requires our most careful consideration.

With all our investigations the part that the internal secretion of the pancreas plays in diabetes is still not understood. Cecil and Taylor have found by autopsy that in fifty per cent. of the cases of diabetes before 30, the pancreas was not involved. The subject of diabetes has received much attention in the last few years. I wish to call attention first, to the fact that gluten flour is only required, under the pure food laws, to contain thirty-five per cent. of gluten. The rest of it may be all carbohydrate, and, I think as a matter of fact, it is. This should be considered by every physician when he is prescribing gluten flour. Some gluten flour is now labeled "If this flour is used, diabetes can be cured," and as far as I am aware, it is still sold without any restraining hand from the Agricultural Department.

Lusk has given us a most excellent paper on the metabolism of diabetes, and one or two points he has made should be kept well in mind by the clinician. One is that in diabetes every 6 grams of proteid produces 3.65 grams of dextrose. In calculating the sugar in diabetic cases we can arrive at but little information of value to us on the subject unless we take this dextrose of protein into consideration. If we first calculate the amount of dextrose that can be gotten from protein, then we can easily determine how much carbohydrate our patient can metabolise. Lusk gives the following formula for calculating the output of dextrose in diabetes:

$$\frac{\text{Uutput of Dextrose}}{\text{Urine N} \times 3.65 + \text{Food Dextrose}}$$

Wallace, of New York, in his paper before the American Medical Association on the treatment of diabetes, has given us safe and intelligent rules for feeding our patient. Wallace mentions the atropia treatment of diabetes. I have used this in two cases, but both of them were so susceptible to the action of belladonna that I could not give a full therapeutic dose. It is well agreed now that we can not leave out carbohydrates for any great length of time in the treatment of diabetes, but we can have two or three weeks feeding free from carbohydrates. We have at present been unable to substitute any food for carbohydrates. Von Noorden has used alcohol as a carbohydrate in his clinic—never more than that represented by three ounces of whiskey a day, this representing only about 360 calories a day. I do not think glycerine aldehyde and glyco-aldehyde have yet proved of any great value as antiketogenetic substances. It has been definitely established that though the acetone bodies come from fats the quantity of the acetone bodies is uninfluenced by the amount of fat in the diet unless it is given in enormous quantities. Of course the lower fatty acids that occur in rancid butter might prove of great danger.

Duke, of Baltimore, read before the American Medical Association a paper on the lack of platelets in the blood as a cause of hemorrhage. In nearly all these cases the coagulating time of the blood was absolutely normal. This is interesting to the clinician, and I think it has been one of the most valuable additions to this year's knowledge, explaining, as it does, the cause of uncontrollable hemorrhages from mucous membranes or trifling wounds of the skin. The internist has generally believed that these cases are due to a lack of coagulating power in the blood. Duke gives an interesting account of the treatment of these cases by the transfusion of blood.

Conner, of New York, has given us a most interesting point in diagnosis. We have all been perfectly familiar with the anesthesia of the skin in tabes. Conner calls attention to the visceral anesthesia in tabes. A case that came under his observation proved fatal for lack of diagnosis and due to this condition. Conner was called to see a man with fever, the leukocyte count 25,000, temperature 103, clearly proving to his mind that there was infection somewhere in the body. He went over the abdomen but could find no rigidity, no tenderness, no abdominal symptom to suggest any trouble in the abdominal cavity, nor after the most careful investigation could he locate the infection. The man died after five days. On autopsy, more than a pint of pus was found in the region of the appendix, and a clear case of appendicitis had been entirely overlooked on account of the visceral anesthesia masking all the usual clinical symptoms of appendicitis. Dr. Musser, of Philadelphia, in discussing the matter, felt that he

would have had no difficulty in diagnosing the case, but he did not make his method of diagnosis clear at the time.

Strümpell has given us an interesting article on some of the conditions that come from the irritability of the nervous system. He not only mentions bronchial asthma but membranous enteritis. It was only by reading an interesting article by Von Noorden on Colitis a few years ago that my attention was called to the form of membranous colitis due to nervousness. I have a patient now that whenever the nervous system becomes depressed has violent attacks of abdominal pain, passing large quantities of ropy mucus, and the cure is only obtained by treating the nervous system.

Magnus Levy has given us a most interesting article on dehydration by dietetic measures. He carefully reviews the writings of Karell, Oertel, and Widal on this subject. In recapitulation Magnus Levy says: "We are in possession of three methods of reducing the amount of body fluids, and in this way effecting the dehydration of the body; in the first place, by lessening the amount of water ingested (Oertel's treatment); in the second place, by the reduction of the sodium chloride taken in (Widal's cure); and in the third place, the use of a restricted dietary especially poor in protein (Karell's cure)." Levy says further: "The relationship of the protein metabolism and sodium chloride to the water metabolism is pretty well shown in diabetes insipidus. In the true form of this affection it is impossible to control the increased excretion of urine by applying only Oertel's principle of restricting the ingestion of fluid food, but thirst and the amount of urine excreted immediately become less when the amount of salt taken in is reduced 20 to 5 grams daily. The same thing happens if the quantity of albumen is cut down from 120 to 60 grams daily. In the same way, the reduction of the amount of proteid in the food is a benefit in all circulatory disturbances, though the effect is not quite so noticeable as in diabetes insipidus. I cannot lay too much stress upon the importance of excluding sodium chloride in edema, especially in parenchymatous nephritis. I have seen in these cases after the continued use of a diet almost free from salt for several weeks, the amount of urine increase from 30 ounces to 70, 80, or 100 ounces per day.

Diseases of the Heart and Circulation.—Tremendous strides have been made in the last year in applying to the practical diagnosis and treatment of affections of the heart, methods that a few years ago were only used in the laboratory in teaching physiology. I wish to mention some of these newer methods. While at present they are not generally used in Washington City, we will in a few years have to add them to our armamentarium of clinical methods or we will not be abreast of the times in diagnosing maladies of the heart and circulation.

I am glad to say that one of the newer methods has been carefully studied by Claytor and Merrill, and they presented a most interesting and instructive paper to the American Medical Association at St. Louis in June, 1910. I allude to orthodiagraphy, a method by which the x-ray has been brought into use in mapping out the heart, both in physiological and pathological conditions, and also conditions of the aorta. I had the pleasure of hearing Dr. Claytor read this paper, and hearing on all sides the most complimentary remarks made in regard to it. I think it ought to be exceedingly pleasing to the medical profession of Washington that one of these newer methods has been taken up and so ably handled by Washington physicians. I am sorry to say that some of the other methods are at present, so far as I am aware, very little known in Washington.

Cushny, of England, in the July number of the *Heart*, a journal entirely given to the study of the circulation, now published in London, gives us the latest information on the use of the myocardiograph for the mamalian heart.

The electro-cardiogram of Einthoven is now becoming of clinical value in the diagnosis of affections of the heart. Probably it would be well for me to call your attention to some of the scientific features of the electro-cardiogram. For many years it has been known that muscular activity is accompanied by electrical changes. When a strip of somatic musculature is stimulated at one end and contraction is induced at the point of stimulation, this point becomes electro-negative to the resting or inactive end. If, as a result of the excitation, a wave of contraction is propagated in the muscle then as each successive segment enters upon the contractile state each segment becomes relatively electro-negative. Activity is always associated with the development of negativity, and if leads are made from the base and apex of the ventricle and the electric state of one, relative to the other, is recorded, it will be obvious that a very definite idea of the direction which the contraction wave takes in the ventricle may be formed, and, further, an important clue to the point at which contraction starts will be at our disposal. These conclusions are of great importance and should form the basis of all electro-cardiographic studies. It has been shown that the body can be mapped out into two parts by a plane crossing the base of the heart, one abutting upon the base and the other including the apex of the ventricle, and that leads from these two divisions of the body are equivalent to leads from the base and apex of the ventricle. According to Waller, the dividing line already referred to passes from the left shoulder to the right loin. The right arm may, therefore, be utilized as a basal lead and the left arm or either leg serves as the apical lead. These leads are connected with a galvanometer, an instrument invented by Einthoven, which consists of a heavy magnet,

permanent or in circuit, the poles of which are close together. Between the poles a fine platinum thread is suspended. The shadow of the string and its movements is magnified and projected, by means of a system of lenses and an arc light, upon a photographic apparatus. It is by the use of this instrument that in the last year Lewis and Oppenheimer have most clearly proven that the pacemaker of the heart, in other words, the point where muscular contractions commence, in the normal heart, is in the right ventricle in the region where the superior vena cava enters. The contractions pass from here in a wave through the rest of the heart muscle unless pathological conditions exist, one of the most common of which is a pathological condition in the fibers of His, the auriculo-ventricular bundle, producing what is commonly termed heart block.

The polygraph of Mackenzie is undoubtedly an instrument of vast clinical importance. At present I am not familiar enough with it to read its tracings intelligently. I have learned sufficient to know though, that the reading is largely a question of being familiar with the time of the heart contractions. One can easily determine by a look at the radial tracings whether he has tachycardia, bradycardia or a pulsus alternans, but after this has been determined it then takes all the acuteness of the diagnostician to determine in each particular case the pathological foundation for these phenomena. H. Hume Turnbull has shown in the last year that not only digitalis but squills can cause complete heart block. I believe that the field of usefulness of the polygraph in the direction of determining irregularities and other conditions of the heart from drugs will be very wide.

One of the most interesting papers of the year on the heart, has been written by Albion Walter Hewlitt, of the University of Michigan, on auricular fibrillation associated with auricular extrasystoles. These investigations have shown that many cases of cardiac arrhythmia characterized by extreme irregularity without evidence of gross auricular contractions are due to fibrillation of the auricles. In these investigations the myocardiograph was used. What we mean by fibrillation of the auricles, is that the muscular fibers do not pull together; that instead of there being a unison of contraction a bundle of fifty or sixty fibers will contract at a time, making this extremely irregular auricular systole. This same condition can exist in the ventricles and offers for the first time to me a plausible explanation of many of the extra systoles of both auricles and ventricles that we observe clinically.

I think the most complete article that has ever been written upon nodal heart rhythm can be found in Mackenzie's Diseases of the Heart, edition of 1910. I feel that our whole evening could be spent in discussing the newer methods of diagnosing maladies of the heart, if for no other purpose than to arouse the internist of

Washington to their importance, so that by next year some master hand will touch the subject and make it perfectly clear and instructive to us all.

Next week a most complete paper will be read before the Society on " 606," by Doctor Hagner, therefore, I will not give the literature on this wonderful drug. The final results of its action it is yet too early to determine. It is interesting to know that Ehrlich first gave the drug to a dermatologist, Wechselmann, Director of Rudolph Virchow Institute of Berlin. He first reported on its use in 505 cases. Wechselmann's original paper is very interesting.

Dr. J. D. Thomas complimented the paper.

Dr. T. S. Lee had enjoyed the paper very much and had been especially interested in the remarks upon recent progress in the investigation of cardiac diseases. He had recently seen the electrocardiograph as used in Mt. Sinai and the Presbyterian Hospitals in New York; all those concerned in the use of this device are enthusiastic about it and it seems likely that it will help much in the solution of obscure points in cardiac pathology and diagnosis.

As to the interpretation of polygraph tracings, there should be no great difficulty in reading the records in most cases. No doubt the case referred to by Dr. Roy was an unusually intricate and confusing one. The polygraph in most instances will be found very helpful in the interpretation of cases of heart block, and it can be used as a practical bedside instrument.

Dr. Roy had not meant to convey the idea that polygraph tracings are difficult to read; he merely referred to the incident because he had been glad to find distinguished company in the inability to read the tracings of that instrument.

CASE OF CYST OF APPENDIX.*

By George Tully Vaughan, M. D.,

Washington, D. C.

The specimen was removed from a man about 55 years old, who had suffered from bilateral inguinal hernia for which he was operated upon and cured. Nearly a year later he complained of pain in the right inguinal region, at times severe, and thought the hernia had returned. Examination showed a small abdominal ring and no protrusion, but above the internal ring there was a slight bulging of the abdominal muscles. An operation was done

* Reported, with specimen, to the Medical Society, February 8, 1911.

for this; the muscles were divided, overlapped, and stitched together. The appendix was found attached to the caecum and passing upward and inward. Attempts were made to bring it down. It seemed to end in a dilatation or was attached to the gallbladder, as the swelling felt to the tip of the finger about the size and shape of a distended gallbladder. In attempting to bring it down, the appendix broke at its attachment to the dilated portion and the abdominal incision had to be enlarged in order to remove the swelling. It proved to be the distal half of the appendix, three inches long and two inches in diameter, tightly distended with fluid and attached to the abdominal wall by means of the mesoappendix. The appendix had become obliterated in the middle and thus made a retention cyst of the distal portion, mucus from the glands continuing to accumulate in the closed sac until it reached the size seen in the specimen. Such conditions on a small scale are quite common, but this is the second large cyst I have seen, the other being nearly six inches long, much dilated and looked like a sausage.

Dr. Stavely said that the specimen was most interesting. He had himself encountered appendical cysts, but it is unusual for them to attain the size of the one exhibited by Dr. Vaughan. Dr. Stavely had operated upon an old lady for appendicitis; the case was very acute, the appendix being surrounded by an abscess, but in the pus that escaped, considerable mucus could be seen, from which he had concluded that there had been a cyst of the appendix which had ruptered into the abscess cavity. Another interesting feature of the possibilities in the pathology of the appendix he had encountered and had shown the specimen to Dr. Deaver, who said that he had never seen the condition. There was a hernia of the wall of the appendix, the mucus membrane being thrust through and distended on the outside of the appendix with mucus. He enquired of Dr. Vaughan if the occlusion of the appendix in his case could have been due to rotation of the organ after its distal extremity had become fast by adhesion.

Dr. I. S. Stone said that it was interesting to consider how easy it would have been to leave the cyst in the abdomen in this case. The use of the McBurney incision would invite such an accident. He himself had presented such a specimen some years ago; there was a stricture at the base and the whole appendix was converted into a cyst. This variety is rather uncommon.

Dr. Vaughan thought that there had been no rotation in this case, because the mesoappendix was attached from the base to the tip, merely the lumen of the appendix being occluded at the point of constriction. There may have been a kink to account for the occlusion at this point.

PREMATURE SEPARATION OF PLACENTA; WITH REPORT OF A CASE.*

By A. L. Stavely, A. M., M. D.,

Washington, D. C.

Premature separation of the placenta was considered very rare until Goodell collected 106 cases and later, in 1901, Holmes collected 200 more, and concluded that the accident occurs about once in 500 pregnancies. There is no doubt that it may occur in very mild form as in the case I report. Perhaps many of us have met with the condition without recognizing it. A small local hemorrhage would cause only slight separation of the placenta, not enough to produce much pain or cause shock or materially interfere with the nutrition of the child. Sometimes, however, small hemorrhages do cause a great deal of pain. The clot will be absorbed and examination of the placenta post partum will show scar tissue at the site of the hemorrhage. Where extensive separation occurs, the patient suffers intense pain and becomes collapsed from pain and hemorrhage. The mortality in diagnosable cases varies from 40 to 50 per cent. for the mothers and is about 90 per cent. for infants. The causes of premature separation of placenta are: traumatism, inflammatory changes in the decidua, endometritis, nephritis, multiparity, hydramnios, short cord, and twin pregnancy.

The diagnosis is fairly easy if one is on the look-out for the accident. I have seen four cases; the fourth being the one here reported. This was in a woman of 35, primipara and had had one miscarriage. She lived at Berwyn, Md., and a week or ten days before the expected time of confinement her husband telephoned that he was not satisfied with her condition and wanted to bring her into the city for observation. Examination showed that she was in good physical condition but had some uterine pains; while on the examining table two very strong uterine contractions were observed. The cervix was soft but not dilating. The fetal heart could not be heard. I was in doubt as to what to expect and told her to go home and go to bed. Two days later she came into the hospital, and within fifteen minutes after I reached her the baby was born. It was perfectly formed but showed no sign of life and there was no pulsation in the cord. I clamped the cord and turned the baby over to an assistant with the hope that it might be resuscitated. There was no hemorrhage from the mother. About ten minutes later the placenta came away and showed the cause of the fetal death; if we had not examined it and found the evidence of the former hemorrhage with separation, I should

* Reported to the Medical Society, February 15, 1911.

probably have remained in ignorance of the cause of the fetal death. The patient had had continuous pain during the day before delivery and had not felt any fetal movement for over two days. In this case, the mother showed no bad effects at the time of the accident, and in such cases the diagnosis is very difficult.

Dr. A. F. A. King said that he remembered some similar specimens of premature separation of the placenta shown by Dr. Stavely at a former time; the condition is most interesting. Two symptoms in particular should excite suspicion that this accident has occurred: (1) A sudden distention of the uterus, causing an enlargement noticeable to the woman; (2) a feeling of abdominal distention and pain in the uterus. With respect to the treatment, the whole question of success depends upon whether there are strong pains or not; if there are no pains, palliative treatment is of no avail. The trend of opinion is that in the painless cases a Porro operation should be done.

Dr. Mackall had seen several cases of premature separation of the placenta, and in the symptomatology he could not agree with Dr. King; in those cases which had come under his own observation, the uterus was harder and smaller than normal. There was none of the sudden and great distention spoken of by Dr. King. Nor could he agree that a Porro operation should be done; spontaneous delivery should rather confidently be looked for.

Dr. I. S. Stone differed from the other speakers as to the proper procedure in these cases. The best method is to produce hard contractions by rupture of the membranes; delay is fatal. Rapid delivery is the proper procedure.

Dr. A. F. A. King said that if the woman has pains, of course the proper procedure is rapid delivery; there should not be any great difficulty in the management of such cases. It is in the cases in which the uterus is soft and flabby, paralyzed by the sudden and great distention, that to rupture the bag of waters is a fatal mistake.

Dr. W. P. Carr said that it seemed evident that Dr. King's position was not understood; he had been speaking of cases in which the uterus is overdistended; in such cases, the uterus becomes paralyzed and flabby just as the urinary bladder does from overdistention. And there must of necessity be some increase in the size of the uterus after premature separation of the placenta, if the subplacental hemorrhage is large enough to make the condition recognizable. Fluids are practically incompressible, and if a quart of blood is added to an already full uterus, the uterus must increase in size. A very slow subplacental hemorrhage may cause sufficient distention to produce the paralytic condition spoken of by Dr. King, and in such cases it is very

doubtful if contractions of the uterus can be provoked. He could see no essential reason for performing the Porro operation, however, even in these cases; simple Cesarean section should suffice.

Dr. Stavely said that Dr. King's remarks as to diagnosis were pertinent, but there should be no great difficulty usually, in recognizing the condition; there are, however, some very obscure cases, and here there may be occasion to doubt what has taken place. In a recent discussion before the British Surgical Association, the majority of the surgeons agreed that in these cases the Porro operation is best, because the paralysis of the uterus persists even after the section and there is danger of postoperative hemorrhage.

MALFORMATIONS AND MONSTROSITIES IN THE ARMY MEDICAL MUSEUM.*

By D. S. Lamb, A. M., M. D.,

Washington, D. C.

(Abstract.)

The paper first defined terms, then treated briefly of causes, referring especially to the publications of F. P. Mall and H. H. Wilder. The classification is mainly that of Hirst and Piersol, based on that of Foerster. There are some 400 specimens of malformation in the Museum, not including those of the teeth, which are not treated of in this paper. About one-third of the specimens were contributed by the physicians of the District of Columbia. Following the order of the classification mentioned, the specimens were briefly described by classes and individually. Nearly all forms of malformation are represented; a few are not, such as situs transversus and pygopagus. But little has been done to accumulate specimens of variations in blood-vessels anl lymph-vessels, in view of their frequency. Ectopia pregnancy is classed with the malformations, although not usually treated under this head in the textbooks; the subject is omitted from this paper because covered by a publication made by the same author in 1903.

Dr. A. F. A. King said that the Society should feel greatly indebted to Dr. Lamb for the magnificent paper and the specimens with which it was illustrated. The subject is somewhat beyond the knowledge of most medical men. Dr. King remembered very well the Siamese twins; and also the North Carolina twins—colored girls connected by some birth anomaly, who went about ex-

* Read before the Medical Society, February 15, 1911.

hibiting themselves; he recalled that they waltzed together very gracefully.

Dr. Nichols said that there is one form of monstrosity not incompatible with life and health, viz: achondroplasia. Some works on pediatrics speak of this condition as a disease of infancy; but it is not, it is a fetal disease and is due to intrauterine failure of development of the epiphyseal cartilages so that there is nothing to allow of growth of bones in length. He had seen twelve or fifteen individuals in Washington, exhibiting evidences of this deformity. One very rare abnormality is congenital absence of the vermiform appendix; Dr. Nichols had found one instance of this anomaly.

Dr. Shands spoke of a photograph in his possession which portrayed a young girl, 8 or 9 years old, with three hands on one arm; there were six bones in the arm, thirteen perfect fingers, and two rudimentary ones; all the fingers were movable.

Dr. Lamb said that the subject has its practical side. When one thinks of instances in which physicians have tied off an umbilical cord including an umbilical hernia, or have put poultices on a spina bifida tumor, it is evident that all medical men should have a knowledge of these developmental anomalies. Some cases of this sort are now remediable by surgical intervention, and it seems likely that with further progress, others may become so.

The Parlor Dead-Line.—An old Irishman named Casey made a lot of money as a contractor, and built a fine house for his children.

The sons and daughters were much ashamed of the plebeian father, and Casey was always kept in the rear of the house when they had a party or a reception. One day Casey died and there was a great to-do about it. The children had a fine coffin, with lashings of flowers, and Casey was laid out in great state in the parlor.

That evening an old Irish woman, who had known Casey when he was a laborer, came and asked to see the face of her dead friend. They conducted her to the parlor.

She walked up to the coffin, took a long look, and said: "Faith, Casey, an' they've let ye into th' parlor at lasht!"—*Saturday Evening Post.*

"606"; WITH REPORT OF TWENTY-TWO CASES TREATED WITH IT.*

By Francis R. Hagner, M. D., and Homer G. Fuller, M. D.,
Washington, D. C.

(Abstract.)

Ehrlich–Hata's dioxydiamidoarsenobenzol, better known as 606 and salvarsan, has been used in the United States less than one year and has been on the market but two months, but the literature is full of reports of cases treated with the drug. The reports seem to show that when given in proper doses it is a specific against syphilis and parasyphilis, destroying the microorganism, the spirochaeta pallida.

The authors followed the usual method of administration. The acid salt the dihydrochloride was used in .6-gram doses, put up in tubes; the tube was opened when wanted, the powder poured into a 10-c.c. glass-stoppered graduate, 5 c.c. of sterile water added, then normal hydrate solution, drop by drop; a flocculent precipitate appeared; a little more sodium hydroxide cleared the precipitate, forming a gelatinous mass, which was ready for injection.

The alkaline solution is more painful for the first few hours than the neutral solution, but is much more rapidly absorbed and there is no induration. The intravenous method is the better, the vein being exposed under cocain and adrenalin anesthesia.

Another method is as follows: The .6-gram dose is dissolved in 50 c.c. of hot sterile physiological salt solution in a sterilized mortar; one c.c. of sterile chemically normal NaOH solution is added; a yellow precipitate is formed which is redissolved by adding the NaOH solution, drop by drop, not more than 4.5 c.c. in all. This is transferred to a graduated glass and enough salt solution added to make 300 c.c. This is well mixed, and when heated to the proper temperature is ready for use. Each 50 c.c. of this solution contains .1 gram of salvarsan. The dose can be regulated accordingly. The salt used should be chemically pure NaCl.

The two methods can be combined. By the intravenous method the spirochaete is poisoned and the arsenical preparation is eliminated within 48 hours. When the solution is injected into muscle, the time is longer and the effect less intense, requiring about one week for the elimination.

The syringe should be of glass with a capacity of at least 10 c.c.; the needle, platinum-iridium, should be of large caliber and 6 c.m. long, like those used to inject the mercury salts; and the injection is made in the same way. The patient should be kept in bed for two days after the injection. Full doses should be given, not

*Read before the Medical Society, February 22, 1911.

repeated small doses. Some physicians follow the use of salvarsan by a course of mercury injections, but probably the only way of judging of the effects of the salvarsan is by keeping the patient free from mercury.

The pain following the injection of salvarsan may last several days; a rise in temperature is observed in about 20 per cent. of cases but does not occur in the non-syphilitic cases. Headache, nausea, vomiting, restlessness often occur. If there is a syphilitic eruption on the skin, it is likely to be aggravated.

It is found that an erosive chancre usually clears up in 12 to 24 hours; if there is pronounced sclerosis, a longer time is required. Mucous patches usually heal in 24 to 48 hours. Roseola disappears in a few days; malignant ulcerous syphilides and gummata in a few days. Sometimes a second injection is necessary. Tabetic patients markedly improve.

When death occurs in infants after the use of salvarsan, it is probably because of the action of the endotoxins.

The injection changes the Wasserman reaction from positive to negative in 15 to 60 days, depending on the dose and stage of the disease.

There appear to be some contraindications to the use of the drug, such as retinal disease; cardio-vascular disease where compensation is poor; in advanced paralysis; in diabetes mellitus; in bradycardia; in aneurysm and in chronic disease of the kidney.

Dr. H. J. Nichols, Captain, U. S. A., said that the paper as presented by Dr. Hagner was very complete; it seemed desirable to emphasize, however (1) that in 606 we have a remedy which is not dangerous if properly used, and (2) that it will kill the spirochæta when brought in contact with it. As far as known, the siprochæta has no life cycle and so is amenable to the action of the drug at all times; there is some evidence to show that in very late stages of syphilis the organism may be encapsulated and so not open to the influence of salvarsan. It remains to be settled how best to bring the drug into contact with the spirochæta in the body; and the problem has two factors; (1) the proper dosage, and (2) the mode of administration. The dose as first used was too small; many cases suffered relapse after the use of 606; indeed, Ehrlich's original intention was to try several thousand cases with a dose of 0.2 g., then several thousand more with 0.3 g., then with 0.4 g., and so forth. Wechselmann originated the use of the neutral suspension, thinking it not so painful; but given in this way, it was found that not always was the drug entirely absorbed, and its persistence in the tissues was apt to give rise to necrosis. It seemed to Dr. Nichols unfortunate that the circular with the ampoule in which the salvarsan is marketed should recommend the neutral suspension; the alkaline solution is preferable. One objection to the neutral suspension is that

decomposition may take place in this form and poisoning of the patient result. His own experience with the neutral suspension was that two cures were obtained out of ten cases injected. The intravenous method seems likely to be the method of choice; it certainly is most comfortable for the patient, but it remains to be seen whether it will prove efficacious. Military surgeons are advantageously circumstanced in that they can keep soldiers under treatment under observation and can thus accurately check up results; this, of course, is not possible in private practice. Again, as to dosage: some are inclined to doubt the possibility of effecting a cure with one injection; it seemed to him, however, that if the initial dose is never less than 0.5 or 0.6 gram, a certain number of cures may follow one injection.

In 1909 there were nearly 2,000 cases of syphilis under treatment in the army; and there were 122 men discharged for disability due to syphilis; these figures show the inefficacy of mercury and potassium iodid in some cases, and the results from these old drugs appear very poor when compared with the results of salvarsan. There have been about 200 cases already treated in the army with 606 and the results are very encouraging indeed.

The pain that follows intramuscular injections is like that which follows other surgical operations; it must be borne in order to derive the benefits of the operation. The intravenous method will have to be scrutinized under the light of statistics. At present it seems that when used in this way, two injections of salvarsan are necessary, 0.6 gram at each dose and the Wassermann reaction carefully watched. Thus far it seems that for routine work, the intramuscular injection of the alkaline solution is the best method. For the most energetic action of the drug, the first injection should be by the intravenous method, 0.5 gram being given; a week later, a second dose should be given intramuscularly.

Dr. Mulcahy said that the intravenous administration of salvarsan is at times quite difficult. He had given it in this way to a girl of 17, whose veins were small and hard to find; extensive dissection was necessary to get the needle in, and unfortunately a slough resulted at the site of the injection.

He had given salvarsan to a man with cerebral syphilis, who was hemiplegic; three days after the injection of 0.3 gram of salvarsan he walked well. Six weeks later, however, he relapsed; the initial dose had been too small.

Dr. H. H. Hazen said that those who see much of syphilis know that calomel injections are the most effective of all mercurials; we also know how painful these injections frequently are. Therefore the technique of Lambkin of the British army has been a great boon. Upon reading the work of Levy-Bing and Lafay, it occurred to Dr. Hazen that if the mixture was a good medium for rendering painless the injections of calomel it might also be a

good medium for salvarsan. His technique was extremely simple: he poured the 606 into a sterile mortar and slowly added about 5 or 6 c.c of the following: camphor, one-half drachm; monomethylcatechol, half drachm; sterile paraffine oil, q.s., one ounce. This was then ground with a sterile pestle until suspension occurred. Certain precautions must be taken: the mortar and pestle must be dry and not too hot, and the syringe must be absolutely clean and entirely free from any gummed oil. These injections are made deep into the muscles of the buttocks. The freedom from pain is remarkable; not one of the cases has required morphine, none has had more than some soreness and tenderness; the results have been better than even the neutral suspension. To show how effective this treatment is he desired to report the following cases:

(1) Male negro, age 28; severe papular syphilis of 3 months duration. Under inunctions continued for three weeks the lesions were fading very slowly. A .5-gram 606 was injected into the buttocks; about one week later the rash became a little brighter and then began to fade, until in three weeks it was almost entirely gone; ¾ gr. of calomel into the muscle completed this disappearance. The buttock was swollen and sore for four days.

(2) Male negro, age 26; annular syphilis one week, no treatment. A .5-gram 606 in oil was used. In five days the lesions were entirely gone. Never more than a slight tenderness of the gluteal muscles, which lasted about six days.

(3) Male negro, age 30; tubercular lues of scrotum for four months. A .1-gram 606 in .5 c.c. oil. The lesions were made distinctly worse, ulceration starting, and more induration. Stiffness and soreness for ten days after injection, more so than in any other case in this series.

(4) Male negro, age 29; lues four years ago. In August, 1910, pain and stiffness of the left side came on and paralysis of the right rectus externus muscle. At time of injection this paralysis had persisted and there was considerable spasticity of left arm and leg. Slight discomfort began the next day, but was gone in four days, after injection of .6-gram 606 in oil. Condition much improved in two weeks.

(5) Female negro, age 35; gummata six months; several times salivated, and treated by inunctions and injections, but to no purpose. A .6-gram 606 in oil made a marked improvement in two days, and practically cleared the patient in one week. Some soreness for ten days.

(6) Male white, age 57; tabes for ten years, Noguchi positive. Severe girdle pains and cramps of feet, some incontinence of urine. Pains every few days. Eye grounds showed beginning optic atrophy, not inflammatory but due to the tabes. On account of the eye condition and because of the small stature of the patient, only .3-gram 606 was given in oil. There was never the slightest

induration nor local discomfort. Four days after injection the temperature rose to 102.2 but promptly fell, and patient went to work the next day. He has felt very much better, and has had but one severe attack of pain since the injection; the betterment of the incontinence which was marked for nearly two weeks has not been permanent.

(7) Male white, age 44; referred by Dr. Polkinhorn. Patient denied infection, but one daughter had a specific interstitial keratitis. Patient had had throat trouble for three winters, but was much worse last winter, had lost 24 pounds because of inability to eat. Examination showed the uvula gone, a large scar on the back of the pharynx, and half of the epiglottis gone and covered by a dirty slough. A .6-gram 606 in oil. Two days later the ulcer was absolutely clean and ten days after injection was granulating. Some pain and tenderness and considerable lameness began two days after injection and lasted six days.

(8) Male white, age 28; chancre one year ago, maculopapular eruption for two weeks, no treatment. A .6-gram 606 in sterile paraffin oil, no creosote or camphor; all lesions gone in ten days. Sore and stiff and laid up from work for ten days. Much more pain than when other constituents are added to the mixture for injection.

All the patients showed an elevation of temperature, usually starting about 36 hours after injection, and lasting about four days. The highest temperature was 100, except in case 6.

In all cases blood examinations were made before and after injections. There was always a temporary leucocytosis, never high, and later a drop in leucocytes to below what they were when the injection was given. The percentage of polymorphonuclears falls and of small lymphocytes rises.

To recapitulate, the injections are easy for both patient and doctor, there are no bad after effects, and the patients respond rapidly to the treatment.

Just one word in conclusion: even with the aid of the Wassermann reaction we are not justified in assuming that we can permanently cure syphilis by means of 606; at least fifteen years must elapse before we can definitely say that the disease has been eradicated.

Dr. Constas reported seven cases in which he had employed salvarsan with satisfactory results. He had used the alkaline solution in all his cases; the pain at injection is great and the induration resulting is marked, but disability is not of great duration.

Dr. Lowe called attention to a device invented by Dr. Bovée for the intravenous administration of normal salt solution, consisting essentially of a glass tube intervening between the reservoir and the needle, this tube containing a thermometer about which the solution flows. It has been shown experimentally that

there is a difference of about 12 to 15 degrees of temperature between the bag and the needle; by watching the thermometer, therefore, the proper temperature of the solution may be preserved. Dr. Lowe thought that this device might with profit be used for the intravenous injection of salvarsan.

Dr. Lochboehler said that some of the speakers had made the statement that the use of salvarsan was not attended with any danger to the patient. In the literature, however, there have been some fifteen deaths attributed to the use of this drug. He was inclined to doubt the accuracy of these reports, because Wechselmann has repeatedly injected infants with salvarsan, and effected cures with no harm to the infants. Dr. Lochboehler felt inclined to think that those cases reported as fatal effects of salvarsan must have been ill selected cases, and that perhaps the deaths were actually due to something else.

Dr. Kebler had listened with great interest to the paper and the discussion. He had followed the history of this remedy since Ehrlich's preliminary announcements, and he could but admire Ehrlich's scientific conservatism under many difficulties. Though put on the market so recently, it already had fallen into the hands of the Philistines, who are advertising it extensively as entirely harmless. This is a great mistake; for it may be harmful, being an arsenical preparation. It must be kept in the hands of responsible physicians or it will be sure to fall into disrepute, by reason of indiscriminate or careless use.

Dr. J. D. Morgan thanked Dr, Hagner for the paper Dr. Morgan had followed case 15 at the hospital and had found the effects of the salvarsan were most remarkable. He had watched the progress of a second case, and both individuals seemed to improve most remarkably in their general health.

Dr. Magee expressed his appreciation of the paper, and commended the care exercised by Dr. Hagner in the use of salvarsan. Dr. Magee had observed the effects of the drug in seven cases, and endorsed the enthusiasm of the other speakers. He was indebted to Capt. Nichols for the preparation of the salvarsan used in his cases. He thought it desirable to report an unusual manifestation following the use of 606 in a case of syphilis of the liver of old standing. The patient had been warned of possible danger from the use of the drug, but desired that it be given. On the eighth day after injection, a roseola accompanied by a temperature of 103 appeared, but both quickly subsided and the patient is now quite comfortable.

Dr. Polkinhorn had witnessed the effect of salvarsan upon one of the cases reported by Dr. Hazen. This man had the most marked tertiary lesions of the throat that Dr. Polkinhorn had ever seen; dysphagia was so marked that he had expected to find cancer of the throat at his first examination. The examination showed syphilitic ulcers; the uvula was gone and one-half of the epiglottis. The patient had lost 24 pounds in weight since last

November. Forty-eight hours after the administration, the sloughing epiglottis cleared and presented a clean ulcerating surface. This is somewhat slow in healing, but the patient can eat readily and has already gained six pounds.

Dr. Syme had given upward of 600 intravenous injections of salicylate of soda in a manner which presented no difficulties and should be applicable to the administration of salvarsan. A tourniquet is placed about the upper arm and sufficient pressure applied to the arm to cause the veins at the elbow to become prominent. The vein is then penetrated by the needle and the blood allowed to flow sufficiently to demonstrate that the point is within the lumen of the vessel. The tube conveying the solution is then connected with the needle, the tourniquet loosened, and the fluid allowed to flow. He has never had any trouble with this method; it is painless and no dissection is required.

Dr. Hagner was grateful for the reception the paper had been accorded. He wished to call attention again to case 18. This man had tabes, and the salvarsan caused great improvement in his general health, and his tactile sense distinctly improved. Both tabes cases in the series reacted with fever after the injections of the drug. Dr. Hagner had seen relapses in only two cases; he had reinjected one case because the improvement was slow. He thanked Capt. Nichols for coming to discuss the paper; particularly, because Dr. Nichols had had more experience with the use of salvarsan than any other man in Washington. Dr. Hagner felt very much like Dr. Nichols about the pain produced by the injections; the benefits are so great that the pain is negligible; the after soreness does not last longer than a week. Salvarsan undoubtedly has an effect upon syphilis not to be seen after any other drug or combination of drugs; it seemed to him that the question will come to be not whether salvarsan shall be given, but in what dose shall it be given. He had been interested in Dr. Hazen's use of oily suspensions, but had never employed salvarsan himself in this way. He felt that if the suspension is not entirely absorbed, the use of 606 in this way could not be as good as when the alkaline solution is used. He remarked, apropos of a case of Dr. Constas, that mucous patches at the angles of the mouth are usually most resistant to treatment; they absolutely disappear after salvarsan is given, but somewhat later than other lesions. He knew nothing of any mortality from the use of 606. Ehrlich had, however, advised that it be used with great caution in infants; not for fear of the salvarsan, but for fear of death from an overdose of endotoxins liberated by the sudden destruction of the spirochætes in the body. Most fatalities reported in the literature have been where the drug has been given in old nervous lesions. Is there a psychic effect produced by the use of the drug? There is a most remarkable change in the appearance of the patients after the use of salvarsan, a return of cheerfulness and a sense of well-being.

ACUTE ANTERIOR POLIOMYELITIS IN THE DISTRICT OF COLUMBIA.*

INTRODUCTION.

In the summer of 1910, the increasing alarm which the prevalence of infantile paralysis in the District of Columbia was generally causing, led to the appointment by the President of the Medical Association of the District of Columbia of a committee, the duty of which should be to investigate the prevalence of the disease and any other facts of interest concerning it, and report the same to the Association. The President, Dr. N. P. Barnes, appointed the following committee: Dr. Philip S. Roy, Chairman; Dr. Prentiss Willson, Secretary, and Drs. Geo. N. Acker, J. B. Nichols, B. M. Randolph, Tom A. Williams and Wm. C. Woodward. At the first meeting of the committee the President of the Association was requested to add the following well-known scientific men to the committee as associate members: John F. Anderson, M. D., Director of the Hygienic Laboratory, U. S. Public Health and Marine Hospital Service; Wm. H. Hough, M. D., Clinical Pathologist, Government Hospital for the Insane; Frederick F. Russell, M. D., Major, Medical Corps, U.S.A.; and Wm. A. White, M. D., Superintendent, Government Hospital for the Insane.

The committee wishes to avail itself of this opportunity to express to these gentlemen its appreciation of their courtesy and of the invaluable nature of their work with the committee. It also takes occasion to thank those physicians who, by their coöperation in reporting their cases, made this report possible, and in this connection it feels that a special expression of its appreciation is due the Staff of the Children's Hospital for their painstaking report of a large series of cases.

While, as the committee is thoroughly aware, nothing new has been added along the lines of epidemiology, symptomatology, or treatment, it feels that the work of Drs. Hough and Lafora along pathological lines presents much that is new and of great value and interest. And while the committee was unable to obtain reports on more than 50 per cent. of the cases known to have occurred in Washington and immediately adjacent suburbs, it believes that the proportions and importance of the Washington epidemic of 1910 are such as to make its record and formal report a matter of obvious expedience. In any event the committee believes the report to be of value as an addition to the numerical method in the Science of Medicine.

EPIDEMIOLOGY OF POLIOMYELITIS IN THE DISTRICT OF COLUMBIA.

Number and Distribution of Cases.—The committee received from various sources information of 552 cases, but upon investi-

* A report of a committee of the Medical Association of the District of Columbia, made to the Association April 25, 1911 and ordered to be printed.

gation it was found that 46 of the reports received were duplicates or represented cases outside of the District. The committee was able, however, to obtain reports on only 246 cases and to obtain the dates of onset of only 150 out of the 246. Information was received of 16 deaths during 1910, occurring among cases that developed within the District, but 11 reports relating to these cases did not give the date of death. Five patients died in the District, who were taken sick elsewhere.

From the data received we were able to spot on the map the location of 188 cases, 176 of these being in the District of Columbia and 12 in the suburbs, either in Maryland or in Virginia, immediately adjacent to the District. The distribution of cases, as spotted on the map, follows closely the density of population and does not seem to bear any definite relation to the sanitary conditions of the locality.

Fatalities.—It is believed that the 506 cases of which we have record include approximately all cases that occurred in the District of Columbia in 1910, and, as previously stated, there occurred among these cases 16 deaths. Computed upon the basis of 506 cases, that being the number of cases shown by the records to have occurred within the District during this period, the case mortality was three per cent. If allowance be made for possible errors of diagnosis, for possible undiscovered duplication of non-fatal cases, and for the possibility that some such cases originated outside of the District, while all the 16 fatal cases occurred among patients who developed the disease within, the percentage of fatalities will, of course, be somewhat increased.

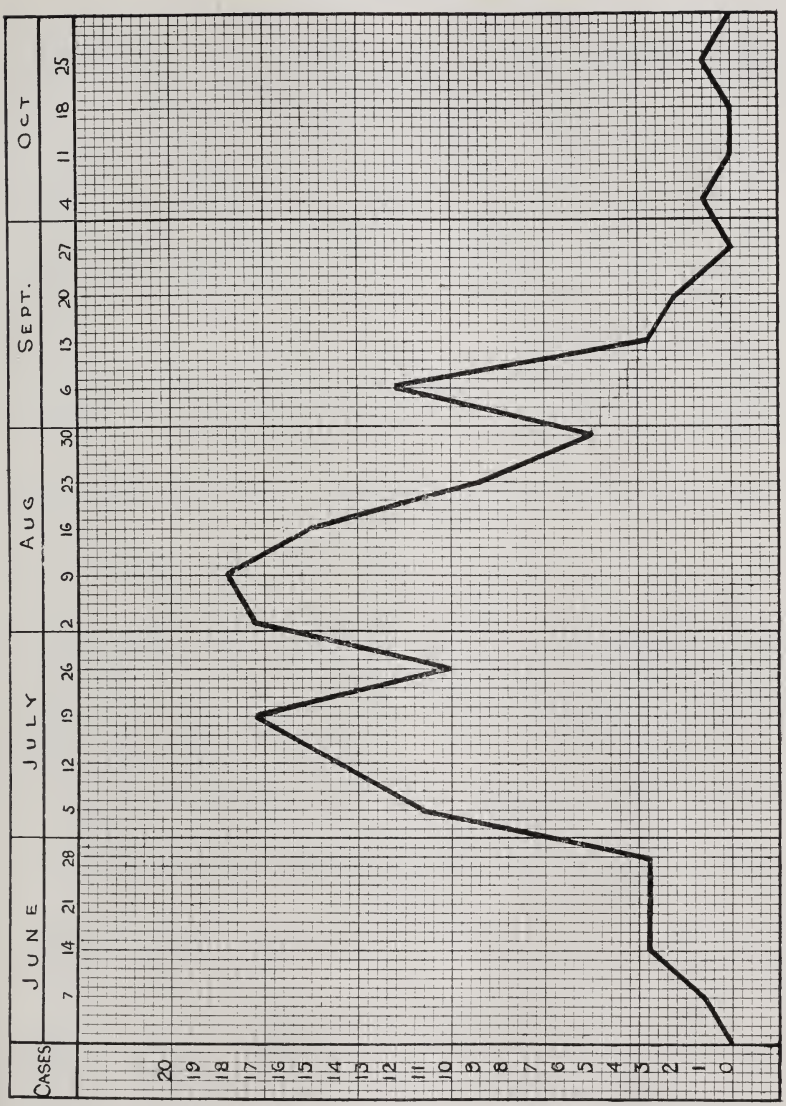
Date of Onset.—The ascertained dates of onset of the 150 cases occurring in 1910 have been plotted on the accompanying curve, by weekly periods. Up to June 1st there were but four cases—one case each in January, March, April and May. The first case in the outbreak began, so far as the reports in the hands of the committee show, on June 7. From that time the number of cases reported week by week gradually increased, so that the curve reached its highest point in the week ending August 9 and then began to fall. The fall was continuous, except for a rise that occurred in the week ending September 6.

By months, the incidence of cases as determined by dates of onset, was as follows: June, 11 cases; July, 61; August, 54; September, 17; October, 2; and November, 1. It is interesting to note that the outbreak began in June, as did also the New York outbreak of 1907 and the Massachusetts outbreak of 1909. The outbreak in the District, however, seems to have reached its maximum somewhat in advance of the other outbreaks referred to.

There was nothing extraordinary about the temperature during the epidemic, the mean being one degree above the normal mean in July, and about the same degree less than normal in August. June was 3° cooler, and September 3° warmer than the normal

Cases grouped about the margin of the map represent patients beyond the limits the map covers, but does not indicate distance between such patients.

THE NORRIS PETERS CO., WASHINGTON, D. C.



for these months. The mean for the last ten days of June, however, was 77.2, slightly higher than the normal for July, 76.8, and slightly lower than actual mean for that month in 1910, 77.6. The summer weather, therefore, coincided very accurately with the duration of the epidemic.

Rainfall during this epidemic was much less than normal. In July there was nearly one inch, 20 per cent., deficiency; in August, over 3 inches, 71 per cent., deficiency; in September nearly one

and a-half inches, 40 per cent., deficiency from the normal precipitation for these months. In June there was an excess of one-half inch, 14 per cent. Less than 20 per cent. of this fell after the 18th of the month, and all of that on one day, the 27th.

Of the rain falling in July nearly half, 1.5 inches, fell on a single day, 11th, and 1.8 inch on three other days, leaving .43 inch, 11.5 per cent., for the remainder of the month. In August there were only three days on which the rainfall was material, over 1.1 inch, and on no day was there more than 3.1 inches. In September there were four days on which there was a measurable quantity of rainfall, and more than half of this, 1.14 inches, fell on a single day, the 1st.

It will be seen, therefore, that in addition to the great deficiency in precipitation, the larger portion of what there was occurred in the shape of downpours of short duration, draining off rapidly, and that the summer was an exceptionally dry one.

Meteorological Conditions in District of Columbia During Warm Months of 1910.

	June	July	Aug.	Sept.	Oct.
Temperature (mean), degrees F.	69.7	77.6	73.8	71.	60.2
Normal, degrees F	72.7	76.8	74.5	68.1	56.6
Excess, degrees F	...	.8	...	2.9	3.6
Deficiency, degrees F (daily)	3.	...	.7	...	...
Precipitation, inches	4.77	3.73	1.26	2.15	5.74
Normal, inches	4.18	4.65	4.40	3.59	3.09
Excess, inches	.59	...	...	...	2.65
Deficiency, inches (total)	...	.92	3.14	1.44	...

Age and Sex.—Of the 246 cases whose ages were given, the age and sex distribution is as follows:

Age periods.	Sex. Male.	Female.	Total.
Under 1 year	6	9	15
Between 1 and 2 years	29	16	45
2 3	24	21	45
3 4	25	16	41
4 5	19	10	29
Under 5 years	103	72	175
Between 5 and 6 years	9	5	14
6 7	10	5	15
7 8	2	4	6
8 9	5	1	6
9 10	1	0	1
Under 10 years	130	87	217

Age periods.	Sex. Male.	Female.	Total.
10 years old	..	1	1
11	..	2	2
15	..	2	2
16	3	..	3
17	2	..	2
18	2	..	2
19	1	..	1
21	2	..	2
23	1	1	2
25	1	..	1
26	3	..	3
28	2	..	2
31	1	..	1
33	1	..	1
37	1	..	1
38	1	1	2
64	..	1	1
Totals	151	95	246

The youngest patient was 4 months old; the eldest, 64 years.

We see from this that 217 of the 246 cases, equivalent to 88 per cent., were under 10 years of age, and 175, or 71 per cent., were under five years. The greatest number of cases for any annual period occurred between 1 and 2 years, and between 2 and 3 years, each having 45 cases.

Race.—Distribution by race was, white, 209; and colored, 37. The 246 cases of which histories were obtained represent a case rate for whites of 83 per 100,000 and a case rate for the colored of 38.* While these figures are too incomplete to show the actual incidence of the disease in either race, yet they probably show with reasonable accuracy the relative incidence among white and colored, the case rate for the colored being only 46 per cent. of that for the white.

Relation to Other Cases.—In six instances there occurred two cases in the same family (six families). Seventeen cases gave histories of having been exposed to acute cases of poliomyelitis, and one case gave a history of having been exposed to a recovered case. Forty-seven cases gave histories of having been exposed to possible abortive cases of the disease, although the information as to this was not conclusive.

Illness Among Animals.—In one locality, prior to the appearance of anterior poliomyelitis in human beings, there occurred an

* These computations are based upon an estimated population of white, 250,803, colored, 97,657; total, 348,460; the estimates being based upon a series of police censuses preceding the year 1910. The federal census of 1910 reported the total population as 331,069, but it appears that no figures have yet been given out with respect to the race composition.

outbreak of a disease among ducks and chickens associated with paralytic symptoms. A man who performed an autopsy on two ducks having this disease, shortly afterwards developed poliomyelitis; and had it not been for careful laboratory investigations made of the disease, as it occurred in some of the affected ducks and chickens, it might be supposed that there was some relation between the making of this autopsy and the incidence of poliomyelitis. Most painstaking investigations, however, made in the Hygienic Laboratory of the Public Health and Marine Hospital Service, failed to show any relation between the disease as it prevailed in ducks and chickens and poliomyelitis as it occurred in human beings.

Reports were made showing that 7 cases occurred, each in a household in which a dog was also sick; 7 in households in each of which a cat was sick, and 9 in households in each of which chickens were sick.

Conclusions.—It is greatly to be regretted that the committee was not able to obtain data from a larger number of cases, and particularly regretted that the date of onset was obtained in only 150 out of the total of 246 cases reported. The committee's work does not seem to add anything new to our knowledge of the epidemiology of poliomyelitis and offers only two points of possible interest: (1) The distribution of the cases was general, throughout the city, with but little, if any, reference to the sanitary conditions; (2) the date of onset shows that the epidemic apparently reached its maximum in July, and began to decline after the first week in August.

Recommendations.—Your committee recommends, with a view to furthering a study of this disease and of facilitating the restriction of its prevalence, as follows: (1) That the reporting of all cases be made compulsory; (2) that the proper isolation of patients suffering from the disease be required by law; (3) that children residing in dwellings or in families in which cases of poliomyelitis are under treatment be excluded from schools and other places of public assemblage.

HISTOPATHOLOGICAL REPORT OF A CASE OF POLIOMYELITIS ANTERIOR EPIDEMICA.

By Dr. Gonzalo R. Lafora,

Histopathologist in the Government Hospital for the Insane,

Washington, D. C.

Macroscopical Examination.—The gross examination of the spinal cord showed a slight dilatation of the vessels and a thickening of the pia. The gray matter appeared reddish, with small hemorrhages visible to the naked eye, and very clearly delimited

from the white matter. The anterior horns were the most affected in this process, although in the lumbar segment the lesions also extended to the anterior part of the posterior horns. The cervical and lumbar enlargements were decidedly much more affected than the other parts of the cord. The conus medullaris showed very slight lesions. In the pons and in the medulla oblongata dilatation of the vessels and small hemorrhages were seen. As a whole the lesions in the right side were more marked.

Microscopical Examination.—The findings in my case agreed to a great extent with those mentioned by previous observers. In the description I shall pay more attention to some facts not previously described, which I was able to detect, knowledge of which is necessary in order to prevent further errors in the interpretation of the lesions in this disease.

Infiltration of the vessels with lymphocytes and plasma cells, the disappearance of the ganglion cells in certain portions of the spinal cord, or their degeneration in the anterior horns, were confirmed in my case. The production of a large number of Körnchen-cells filling the gray matter and surrounding the few remaining ganglion cells was also a striking feature.

I could not find any difference in the quantity of infiltration in the arteries and veins, a condition which Wichmann, Tharbitz Shell and Strauss have described.

The plasma cells are also found outside of the adventitial spaces of the vessels and many showed karyokinetic processes or possessed two or more nuclei (see drawings).

Most of the macrophages, which sometimes fill the entire anterior horn, were of the mononuclear variety. Many Körnchen cells were also found. A fact not mentioned by other investigators was the presence of Stäbchen cells of neuroglial origin. These were found, quite often, and Mast cells, although seen, were very few.

Among the great number of cells, which infiltrated the gray matter, at times very small diplococci were seen. I also observed some formations, without nuclei, but in the interior of which numerous bodies were contained. These bodies assumed different forms, but were never spherular, like those described in a case by Proescher.* Morphologically they remind us a great deal of the encapsulated forms of the Leishman-Donovan bodies in Kala-Azar. (Figs. 19 and 20.)

I found many homogeneous, round or oval bodies which stained very deeply with pyronin, while the chromatin of the cell nuclei took the methyl-green in the Unna-Pappenheim method. Many other degenerated parts of nuclei stained green with this method, as is shown in the drawings.

The significance of the round bodies is doubtful, although it is

* *New York Med. Jour.*, Nov., 1910.

possible that they are rests of nuclei which have been chemically transformed, and which consequently take pyronin instead of methyl-green.

Many other formations of variable disposition were found in the lymphatic spaces between the nerve fibers of the white matter. These bodies were very likely rests of lymphocytes and leucocytes degenerated and transported by the lymphatic stream.

Besides the degenerations in the ganglion cells described by previous observers, mention should be made of the striking hypertrophy of the nucleolus. From the studies of Levi, it is well known that the nucleolus of the ganglion cell contains a central part which is acidophile and therefore stains red by the triacid method and another peripheral part which is basophile and stains green by this method. The basophile elements appear under the form of smaller bodies around the acidophile and they are also called perinucleoli. In these two parts of the nucleolus a hypertrophy has been described by Achúcarro in rabies. It consisted in the multiplication either of the acidophile or basophile part which lead to the production of series of spherules staining red or green. This phenomenon has been latterly described by Lertz. Since his description this formation has received the name of Lertz bodies.* I found them in a large number of ganglion cells which appeared to be not very greatly degenerated (see Figs. 1 to 4).

In many other ganglion cells very marked neuronophagy was observed. Some of the satellites penetrated the protoplasm of the ganglion cells, giving rise to pictures very similar to Negri bodies, but they differ very much from the latter.

The Altmann granules of the ganglion cells also appear to be greatly increased in number, a condition previously described in rabies.

Explanation of Plate I.

Figs. 1 to 4. Ganglion cells from the anterior and posterior horns of the spinal cord showing hypertrophy and multiplication of the acidophile part of the nucleolus.

Fig. 5. Penetration of neuroglia satellite cells into the photoplasm of the ganglion cells, giving rise to pictures similar to those of the Negri bodies in rabies.

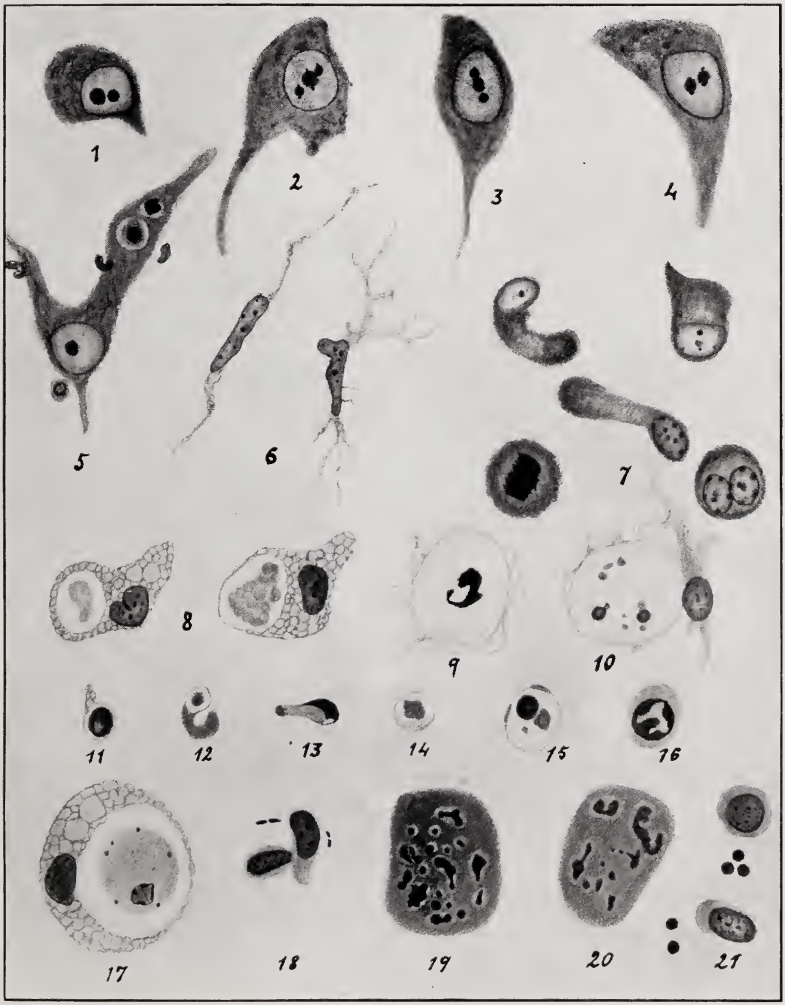
Fig. 6. Rod-like cells (Stäbchenzellen), of the spinal cord (from the part between the gray and white matter).

Fig. 7. Five plasma cells, one in karyokinesis, from the interstitial tissue of the anterior horns.

Fig. 8. Two reticulated cells of endothelial origin acting as scavenger cells.

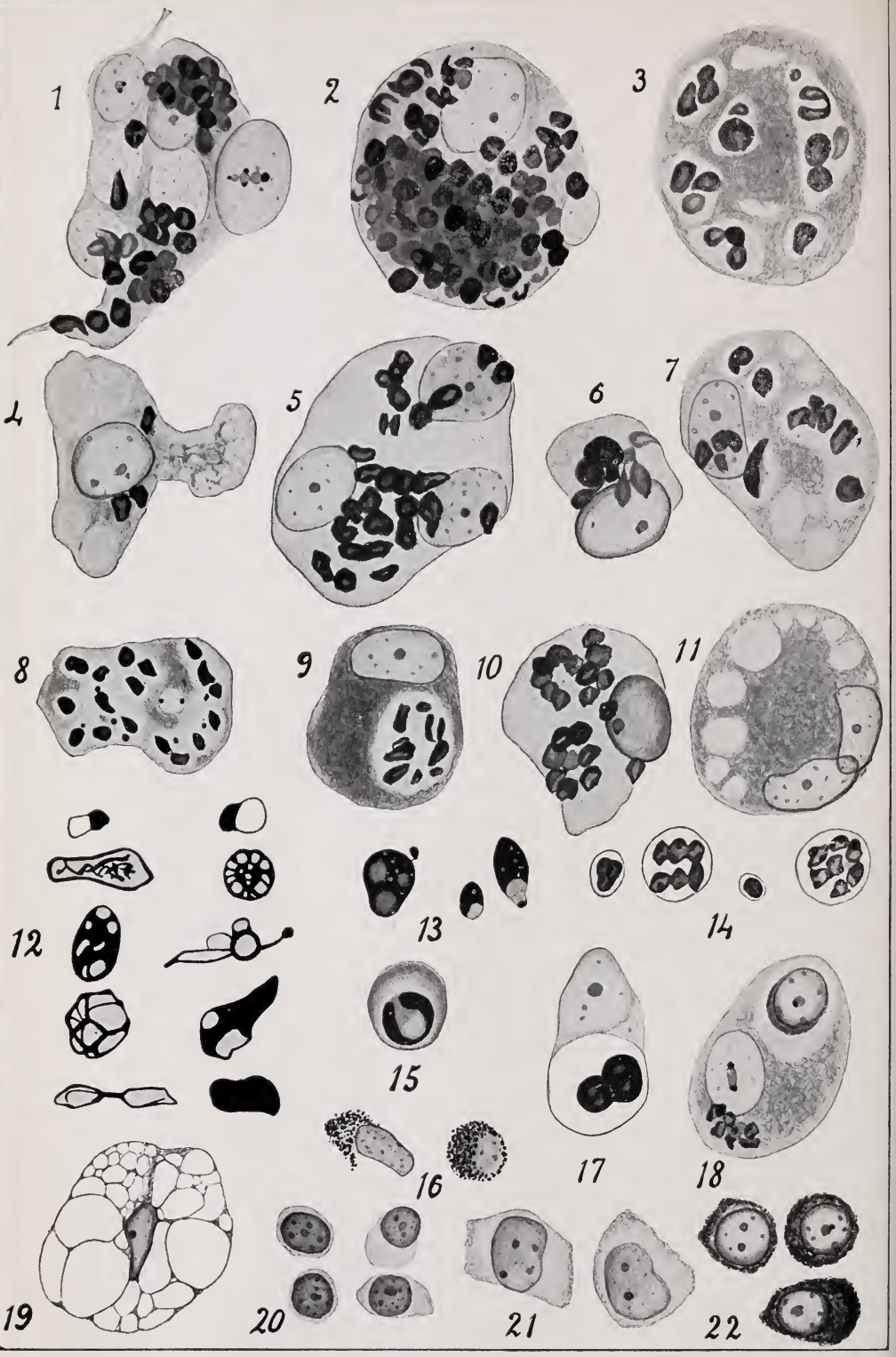
---

* Recently they have been also found in sporotrychosis of the brain. They seem to be an irritative phenomenon, which appears usually only in the protozoan diseases.



Lafora, pinx.

Plate I.



Lafora, pinx.

Plate II.

Fig. 9. Lymphatic space of the white matter of the spinal cord containing the rest of a cell nucleus.

Fig. 10. Lymphatic space of the white matter containing rests of cells.

Figs. 11 to 16. Formations derived from degenerated cells, found in the lymphatic spaces of the white matter between the nerve fibers.

Fig. 17. Large macrophage containing a body, probably a rest of a degenerated cell.

Fig. 18. Diplococcus found in the necrotic zone of the gray substance.

Figs. 19 and 20. Large formation (size three or four times larger than a neuroglia cell) found in the infiltrated gray matter of the spinal cord; containing a number of polymorphic bodies of unknown origin.

Fig. 21. Small round bodies, showing pyroninophile reaction, found in the infiltrated zone of the gray matter (compare their size with that of the neuroglia cells). They are also probably the detritus of cells, showing changes in their histochemical composition.

Description of Plate II.

All drawings with the exception of No. 8, which is taken from Mott (magnification 1,000 diameters) are drawn with the 1/12 oil imm. Zeiss and No. 12 comp. ocular.

Fig. 1. Macrophage of the spinal fluid with many bodies (see description in text) probably rests of nuclei of the polymorphonuclear leucocytes. The nuclei of the macrophage are nuclei of mononuclear cells (large lymphocytes). Regressive modification of the nucleolus in the nucleus on right side. (Toluidin blue.)

Fig. 2. Macrophage with endothelial nuclei and an enormous number of degenerated nuclei (no vacuoles). (Toluidin blue.)

Fig. 3. Macrophage with several vacuoles in which are contained some rests of degenerated nuclei, some of which (drawn with light shade) show the "fuchsinophile reaction" with the Ehrlich triacid methods. No trace of the nuclei of the macrophage. (Ehrlich's triacid.)

Fig. 4. Macrophage of mononuclear origin with three degenerated rests of nuclei. (Unna—Pappenheim.)

Fig. 5. Macrophage with three nuclei of endothelial origin and many bodies. (Unna—Pappenheim.)

Fig. 6. Little macrophage of mononuclear origin with some "pyroninophile" bodies (drawn clear) stained red and several other bodies stained green with methyl green. (Unna—Pappenheim.)

Fig. 7. Large macrophage with vacuoles which contain some degenerated nuclei. (Ehrlich's triacid.)

Fig. 8. Leishman—Donovan bodies from the blood of the spleen

of a case affected with Kala-Azar. Note the similarity with the bodies found in Jinga trypanosomiasis and with the other bodies illustrated here. (The drawing is taken from Mott.)

Fig. 9. Macrophage of mononuclear origin with a large vacuole full of degenerated rests of nuclei. (Ehrlich's triacid.)

Fig. 10. Macrophage with nuclei and rests of polymorphonuclear leucocytes. (Tuluidin.)

Fig. 11. A vacuolated macrophage of endothelial origin without inclusions. (Unna—Pappenheim.)

Fig. 12. Altered red blood cells with unusual forms, the dark parts are stained red and the gray are stained green or are unstained. (Ehrlich's triacid.)

Fig. 13. Greatly degenerated nuclei of lymphocytes. (Toluidin.)

Fig. 14. Degenerations and rests of polymorphonuclear leucocytes, the latter with pyroninophile reaction and not included in macrophages. (Unna—Pappenheim.)

Fig. 15. Mononuclear cell (large lymphocyte with degenerated nuclei) accumulation of the chromatin in the periphery of the nuclei (Kernwandhyperchromatosis). (Toluidin.)

Fig. 16. Two mast cells. (Toluidin.)

Fig. 17. Macrophage probably of endothelial origin with rests of two degenerated nuclei (lymphocytes?). (Toluidin.)

Fig. 18. Macrophage of mononuclear origin with lymphocyte contained in a vacuole and rests of degenerated nuclei in the protoplasm. (Toluidin.)

Fig. 19. Gitter cell of endothelial origin. (Unna—Pappenheim.)

Fig. 20. Four lymphocytes of normal appearance. (Toluidin.)

Fig. 21. Two large lymphocytes (mononuclear cells) with a little metachromatic protoplasm. (Toluidin.)

Fig. 22. Three plasmacells. (Toluidin.)

SOME FINDINGS IN THE CEREBROSPINAL FLUID IN ELEVEN CASES OF ACUTE ANTERIOR POLIOMYELITIS—EPIDEMIC FORM.

By William H. Hough, M. D., Clinical Pathologist,
and
Gonzalo R. Lafora, M. D. (Madrid,),

Histopathologist, Government Hospital for the Insane,
Washington, D. C.

(A preliminary report.)

From the study of the literature[1] on poliomyelitis it appears that in the early stages of the disease there is frequently found a moderate degree of hypertension of the fluid and an increase of protein content and cellular elements. At first the percentage of polymorphonuclear leucocytes is high and later in the disease the

[1] For detailed account on this subject see our article in *Folia Neuro-Biologica*, Bd. V, No. 3, 1911.

lymphocytes are in excess. The pleocytosis disappears rapidly so that shortly after the subsidence of the fever the fluid may be nearly cell free. It should be remembered, however, that most of the authors whose results we have summarized, have failed to give satisfactory indications of their methods and do not describe their findings with as much care as should be used in their work. On account of the variations in the individual reports and the fact that a preliminary study of one case showed certain elements not previously described, the attempt was made to examine carefully a number of fluids from various points of view and with the most exact methods.

The following methods were employed in our studies: The globulin content was roughly estimated by the Noguchi butyric acid reaction. The Fuchs-Rosenthal method was used for the quantitative cell estimation and the Alzheimer [1] method for the qualitative study of the cellular elements. The French method was used in a few cases for comparison. The stains used were toluidin blue, Ehrlich's triacid mixture, Unna-Pappenheim pyronin-methyl green, Giemsa, Romanowsky, hematoxylin-eosin and Heidenhain. We consider it essential for a detailed study of the cells of the fluid to employ many different methods of staining, especially where there is such a multiplicity of morphological elements as is found in the disease under consideration. As will be shown presently, we have frequently observed that certain important details are brought out by one staining method which are not shown by others.

It is to be seen from the table that lymphocytes were in excess in all the cases examined and that the highest percentages of polymorphonuclear leucocytes were found in the early cases. Plasma cells, Körnchenzellen and macrophages were found in all cases in which there was a pleocytosis and several mast cells were found in cases number 1 and 2.

The preceding description of the presence in the fluid in the earlier stages of the disease of many polymorphonuclear leucocytes, which disappear very rapidly after some days, indicates that there takes place in the fluid an acute process of reentrance of the polymorphonuclear leucocytes into the blood or lymph, and that this process can only be understood as the effect of a phagocytosis on the part of the macrophages, or as an autoselective disintegration of these leucocytes with subsequent reabsorption through the lymphatic stream. In the three cases in which we studied the spinal fluid in the first days of the disease, we found indications that the first supposed process is the one that takes place. We observed in all these cases, especially case 2 (a case

[1] The technique and results obtained by this method with colored plates of the various elements found in a number of nervous diseases have been published by one of us. Hough, W. H.: Government Hospital for the Insane, Bulletin No. 1, 1909, pp. 89–106; Bulletin No. 2, 1910, pp. 118–135, Washington, D. C.

FINDINGS IN THE CEREBROSPINAL FLUID IN ACUTE ANTERIOR POLIOMYELITIS.

Number.	Name.	Age.	Duration of disease at time of puncture.	DIFFERENTIAL COUNT.[2]									Noguchi butyric acid reaction.	Remarks.
				Cells per cu.m.m.[1]	Lymphocytes.	Large mononuclear cells.	Polymorphonuclear leucocytes.	Plasma cells.	Körnchenzellen.	Macrophages.	Endothelial cells.	Fibroblasts, degenerated, & unclassified.		
					Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.		
1	H. C.	16 mo.	3 days.	90	66	3	18	9	.25	.25	.50	3	++	
2	M. H.	25 yrs.	4 "	[3]	80	2	14	.75	.50	1	1.25	.50	++	60 to 100 cells per oil im. field.
3	E. G.	19 yrs.	6 "	64	93	.75	4.50	.25	.25	.25	.50	.50	++	
4	A. P.	11 mo.	10 "	14	69	18	3.50	5	3	.25	.25	1	++	
5	T. J.	14 yrs.	12 " ?	6	67	31	.50				.50	1	++	
6	C. H.	3 yrs.	7 " ?	6.5	88	7.5	.25	2.50	.75	.25		.75	++	
7	C. C.	2 yrs.	14 "	5	80	12	1.50		.50	.25	.25	5.50	+	
8	E. W.	1 yr.	21 "	9	78	12	2	4				4	+	
9	R. N.	2 yrs.	25 "	56	84	9	1.75	.50	.75	.25	.25	3.5	++	Slight blood contamination.
10	E. C.	2 yrs.	35 "	5	88	12							— —	
11	B. B.	2 yrs.	17 "	96	64	21	3	.50	.50	1	3.50	6.50	++	Specimen taken 12 hrs. Post Mortem.

[1]Estimated by Fuchs-Rosenthal method. [2]Estimated by Alzheimer method. [3]The coagulum in this case was furnished us by Dr. Tom A. Williams and we were unable to estimate the number of cells per cu.m.m.

manifesting pronounced toxic symptoms) that the spinal fluid contained a great number of large macrophages, some of endothelial origin, whose protoplasm was full of vacuoles containing particles of chromatin with very diverse aspects and morphology Figs. 1, 2, 3, 4, 5, 6, 7, 9, 10, 17 and 18 of plate II). In some of the cells these particles remind us morphologically of bodies which have been described in many protozoan diseases: for example, the Leishman—Donovan bodies in smear preparations of the blood in Kala-azar, or the bodies found by Mott around the vessels in the brain of oxen infected with Jinga trypanosomiasis, are in many respects similar to the bodies found in the protoplasm of the macrophages.

In our investigations many of the bodies above mentioned take a red color (pyronino phile), while others show a very constant green color; this is especially interesting because of the fact that many of the macrophages besides having an accumulation of such bodies in a pole of the protoplasm, have also a vacuole in which is contained a polymorphonuclear leucocyte, the nuclei of which, are stained a bright green color. These histochemical changes may explain the rapid disappearance of the leucocytes from the spinal fluid through rapid process of disintegration of the degenerated polymorphonuclear leucocytes which are inclosed in the macrophages and which undergo rapid histochemical changes probably produced by a digestive process. From these last facts it is difficult to say whether the macrophages are attracted by positive chemiotaxis to the degenerated leucocytes and that they are constantly embracing individual ones or whether there is a preceding process of clumping (agglutination?) of the leucocytes after they have accomplished their defensive activities and then followed by inclusion "en masse" by the macrophages.

We have also found in the spinal fluid isolated corpuscles surrounded by a small amount of protoplasm (see fig. 14). We believe that these bodies are only rests of degenerated leucocytes and perhaps also sometimes lymphocytes embraced by macrophages in their phagocytic activity. In favor of this supposition may be mentioned the fact that we have observed all of the intermediate stages of the degenerative and histochemic differentiation. We have therefore no basis for assuming that these bodies are of a parasitic nature.

The rests of the nuclei, both in the nervous system and in the lymphatic and blood circulation, may have extraneous appearances which should not be considered to be a parasitic formation. Notwithstanding these facts, the presence of a great number of plasma cells and lymphocytes and of several mast cells in the spinal fluid as well as the histopathology of the lesion in the spinal cord incline us to admit the possibility of the protozoan origin of anterior poliomyelitis.

The short reactive process of the polymorphonuclears is, how-

ever, a fact contradictory to this supposed origin. This short polymorphonuclear period may be considered as the meningeal reaction to the penetration of the virus into the nervous system.

From the distribution of the histopathological picture in poliomyelitis and also from the comparison with similar pathological lesions in other diseases of non-bacterial origin, e.g., trypanosomiasis, echinococcus, blastomicosis, sporotrichosis of the nervous tissue and probably rabies, it seems not unlikely that the organism producing the disease is a parasite (probably a protozoan) and that the way of entrance is through the vascular system.[1]

We observed also small altered erythrocytes appearing variously stained, and degenerated lymphocytic nuclei which were found very often in the spinal fluid in this disease.

The other elements found in the fluid do not merit special description; they are lymphocytes in their various forms; small and medium size plasma cells usually with a single nucleus, rarely in a karyokinetic process; occasionally mast cells of a very small size; mononuclear cells belonging to the large lymphocyte group and to the transition forms of Ehrlich; Körnchenzellen with round, oval or compressed nuclei, the framework of which appears splendidly stained by the triacid method, and finally several endothelial cells (many of them having vacuolated protoplasm) indicating a progressive or regressive character. A separate description of them will be found in the article by one of us previously referred to[2]).

Conclusions.

1. The cerebrospinal fluid in acute anterior poliomyelitis is generally clear; there is in the early stages of the disease an increase of pressure although this is not generally pronounced and there is usually an increase of the protein content sufficient to give a positive Nonne–Alpelt and Noguchi butyric acid reaction.

2. In the earlier stages of the disease there is more or less pleocytosis in the spinal fluid. There are many polymorphonuclear leucocytes which are probably dependent upon the reaction of the meninges to the penetration of the virus into the central nervous system.

3. The increase of polymorphonuclears disappears a few days after the acute onset of the disease and is substituted by a lymphocytosis with some plasma cells and sometimes a few mast cells.

4. The disappearance of the polymorphonuclears is brought about through the rapid and vigorous phagocytic activity of the macrophages which sometimes contain twenty or more rests of the polynuclear elements.

5. These degenerated polymorphonuclear leucocytes show in the framework of the macrophages very different degrees of histo-

[1] We bear in mind, however, the fact that some chronic bacterial diseases of the nervous system, as tuberculosis, present a somewhat similar pathological picture.

[2] Op. Cit.

chemical changes which are indications of rapid processes of digestion.

6. The presence of the altered red blood cells in the spinal fluid is probably dependent upon capillary hemorrhages in the spinal cord which is a consequence of the selective preference of the disease for the spinal vessels.

7. Körnchenzellen, altered lymphocytes and other mononuclear elements are commonly present in the fluid until after the fever period.

8. In our histological study of the spinal fluid in the disease, we did not observe any stained bacteria.

9. The similarity of the histopathology of the spinal fluid in poliomyelitis to that of the fluid in some protozoan diseases affecting the nervous system is argument in favor of the protozoan nature of the virus in poliomyelitis, even though some other investigators claim the disease to be produced by a much smaller organism.

THE SYMPTOMATOLOGY AND TREATMENT OF THE EPIDEMIC ANTERIOR POLIOMYELITIS ACUTA, WHICH OCCURRED IN WASHINGTON IN 1910.

When the investigation of the Washington epidemic was decided upon, one of the hopes of your committee was that a more precise knowledge of the early symptoms of acute anterior poliomyelitis would be gained. This hope appeared reasonable; for the means seemed to be provided for a concerted inquiry during the prodromal stage in many cases. This hope has not been realized, due to many physicians finding it impossible for them to furnish complete reports and others feeling that their data were too meagre to send to the Committee.

The following figures are collected from an analysis of all cases presented to the committee. Some of the cases reported are incomplete, and there is frequent failure to differentiate between prodromal symptoms, symptoms of onset, and symptoms occurring in the course of the disease. In such instances the committee has had to use its judgment in grouping the symptoms in accordance with probability, or in throwing them out altogether. No symptom has been classed as prodromal, except when placed under this head by the reporting physician. It would appear that in some cases the differentiation between prodromes and symptoms of onset has not been clearly made, even when so classified by the reporter. These observations must be taken into consideration in estimating the value of the accompanying figures.

The Invasion and Fastigium.

Prodromes.—In the majority of cases it appears that the prodromal period lasts from a few hours to several days. In 27 cases prodromes are stated to have been absent. Those occurring

most frequently are irritability, 100; restlessness, 69; apathy, 50; with a marked tendency to various digestive disturbances, though the latter are by no means constant. Pain as a prodrome is not frequent and seems to be more generalized than local. Catarrhal conditions of the respiratory mucous membranes are conspicuous by their absence.

Duration of Prodromes.—1 hour, 2; 18 hours, 2; several hours, 1; 1 day, 12; 2 days, 9; 3 days; 8; 4 days, 12; 5 days, 2; 6 days, 1; several (or a few) days, 39; 1 week, 11; 2 weeks, 7; 3 weeks, 2; 4 weeks, 1.

Prodromes.—Fever, 27; headache (frontal, 1; occipital, 1), 14; irritability, 100; restlessness, 69; apathy, 50; muscular twitching, 19; sweating, 14. Pain—neck, 2; back, 4; muscular, 3; abdomen, 2; feet, 1; extremities, 2; joints, 1; unspecified, 1—16. Constipation, 15; diarrhoea, 6; nausea, 5; vomiting, 10; anorexia, 6; coated tongue, 2; foul breath, 1; gastric indigestion, 1; intestinal indigestion, 2; gastro-enteritis, 1; tympanites, 1; unspecified, 5; malaise (including indisposition and languor), 9; sleepiness, 2; vertigo, 1; insomnia, 1; delirium, 1; convulsions, 2; coma, 2; photophobia, 2; stupor, 6; chills (single, 1; multiple, 1; unspecified, 1), 3; scanty urine, 1; weak bladder, 1; general weakness, 4. Prodromes stated to be absent in, 27.

Mode of Onset.—The most constant symptom of onset is fever, 181. Next in order come headache 57, vomiting 78, constipation 32, diarrhoea 23, prostration 35, restlessness 27, malaise 20, apathy 17. Pain is usual 102, especially in the legs 26, and back 29. Less frequent are convulsions 11, delirium 9, loss of consciousness, partial or complete, 18. In 11 cases the onset was characterized by chill. Retraction of the head was not infrequent 21, and muscular rigidity 9, opisthotonos 4, and stiffness of the neck, back or legs 6, were noted.

It is interesting to note that the onset was sudden in a large proportion of cases 47, and that sudden paralysis without any preliminary warning occurred in 13. There is a surprising lack of frequency of associated inflammation of the respiratory mucous membranes and throat 10, especially as this feature was put as a leading question on the blanks sent out by the committee for the report of cases.

Mode of Onset.—Fever, 181; headache, 57; anorexia, 14; nausea, 49; vomiting, 78; diarrhoea, 23; constipation, 32; digestive disturbances, 48; tympanites, 3; abdominal pain, 11; foul stools, 1. Pain—Legs, 26; knees, 2; back, 29; foot, 1; neck, 6; unspecified, 11; joints, 6; general muscular, 21; total, 102. Weakness—Legs, 2; neck, 1; spine, 2; unspecified, 4; total, 9; malaise, 20; irritability or restlessness, 27; insomnia, 4; fatigue, 1; nervousness, 1; drowsiness, 3; apathy, 17; vertigo, 1; tremor, 1; muscular twitching, 5; delirium, 9; convulsions, 11; coma, 6;

stupor, 6; unconsciousness, 6; prostration, 35; hyperaesthesia, 1; chill, 11; sweat, 3; retraction of head, 21; muscular rigidity, 9; opisthotonos, 4. Stiffness—Legs, 1; neck, 4; back, 1; total, 6. Onset sudden, 47; sudden paralysis, 13; collapse, 1; syncope, 1; bradycardia, 1; dyspnoea, 3; cyanosis, 1; dysphagia, 1; nose bleed, 1; puffiness of eyes, 1; contracted pupils, 1; dilated pupils, 1; bronchitis, 4; rhinitis, 3; laryngitis, 1; sore throat, 2; urticaria, 1; retention of urine, 2; bladder weakness, 2.

Duration of Acute Stage.—The duration of the acute symptoms presents the greatest degree of inconstancy, varying from 12 hours to 6 months, with an average of 9.4 days. It is certain that the actual average duration is somewhat shorter than this, and that the excessive duration, 4 weeks to 6 months, applies in some cases to the total period of invalidism rather than to the duration of the acute symptoms. As the average is obtained by dividing the total duration in days of all cases by the number of cases, it will be readily seen that a very few such errors in giving long periods would raise the average very materially, and constitutes a much greater source of error than would an inaccuracy in shorter periods.

Duration of Acute Symptoms.—12 hours, 1; 1 day, 2; 2 days, 12; 3 days, 18; 4 days, 20; 5 days, 17; 6 days, 2; 7 days, 28; 8 days, 3; 9 days, 3; 10 days, 12; 12 days, 1; several days, 4; 2 weeks, 20; 3 weeks, 14; 4 weeks, 3; 5 weeks, 1; several weeks, 2; 1 month, 4; 2 months, 2; 3 months, 1; 6 months, 1.

Fever.—The statistics as to the course and duration of the fever are not definite. It is sometimes high and sometimes moderate, and it is occasionally stated to have been absent. The tendency seems to have the maximum temperature at onset, with a gradual defervescence, lasting several days.

Skin Eruptions.—Skin eruptions are present rather frequently 39, but their form is too varied for them to be considered in any way characteristic. In several cases they are obviously merely coincident. It is probable that they would occur with like frequency in any group of patients of this age with an equal degree of fever and digestive disturbance. Eruptions are stated to be absent in 140 cases, which shows that there is no characteristic lesion of the skin.

Sweating.—Sweating at some stage is common 56, but by no means constant; absent in 120.

Skin Eruptions.—Flea bites, 3; chigger bites, 1; pimples (face), 1; heat-like, 1; erythema, 3; dermatitis, 2; petechial, 1; rose spots, 1; bullae, 1; morbiliform, 2; macular, 1; vesicular, 5; herpetic, 3; urticaria, 1; unspecified, 9; eruptions stated to be present in 39 cases, absent in 140 cases, sweating (excessive) stated to be present in 56 cases, absent in 120 cases.

Summary of First Series of 150 Cases.

Prodromes.—Irritability, 48; muscle twitching, 10; restlessness, 37—total, 95. Apathy, 12; sweating, 10; constipation, 11; fever, 18; headache, 10; prodromes absent, 17.

Duration of Prodromes.—Over a week, 15; a few days, 5; four days or less, 39.

Mode of Onset.—Fever, 79; headache, 13; anorexia, 12; nausea, 11; vomiting, 37; diarrhoea, 13; constipation, 21; irritable or restless, 15; sudden onset, 23; sudden paralysis, 9; pains, 39; stiffness, 5; weakness, 7.

Duration of Acute Symptoms.—5 days or less, 50; 1 week or more, 57.

Eruptions of Skin.—Present in 30, absent in 93 cases.

Sweating (Excessive).—Present in 40, absent in 79 cases.

Circulatory System.—Pulse rate generally increased; seldom mentioned as weak. Extremities hot, 50 per cent.; extremities cold, 50 per cent., after the fever.

Respirations.—Labored in a few cases. Catarrh rarely present.

Digestive System.—Anorexia, 85 per cent.; coated tongue, 85 per cent.; nausea and vomiting, 50 per cent.; diarrhoea, 10 per cent.; constipation in the great majority; stools not significant.

Urine generally normal.

The nausea and vomiting so often found should be regarded as central irritation; and the anorexia and coated tongue are merely part of the toxic syndrome which is also revealed by the fever.

The signs of respiratory catarrh, in search of which the committee was most insistent, are rarely noted; and it is our belief that this epidemic has shown them to be insignificant.

Nor has it appeared that intestinal catarrh may be regarded as a symptom provokable by the virus of poliomyelitis; for diarrhoea was noted in only ten per cent. of the cases, not a large proportion in the midst of hot summer amongst patients, the majority of whom were young children.

The Nervous System.—It has not been possible to separate entirely the symptoms during the different stages of the attack. In the 150 cases which the committee first received, and which were the most carefully compiled, the most conspicuous early symptoms were insomnia, pains in head, neck, back and limbs, tenderness, restlessness and irritability, other definite meningeal irritations, shown either by retraction of head, rigidity of neck or Kernig's sign, stupor and apathy, which latter occurred in about a third of the cases. The details are embodied in the subjoined table.

With regard to the data concerning the reflexes, some qualification is required; for they were completely examined only in a few cases. Thus, proportionate figures cannot be obtained.

Exaggeration of the reflexes is not noted; although the Babinski sign is said to have been present seven times. In estimating this statement, it must be remembered that in the very young child, the toe extends on stroking the sole, and that the defense reaction is easily mistaken for the sign of Babinski if the observer is not on his guard.

As to the paralysis, it was most frequent in the lower limbs, occurring in one or both in nearly every case. The unusual number of cases in which paralysis was noted in neck, back and abdomen requires remark. It is possible that in some cases, rigidity has been termed paralysis; for in only four cases out of twenty-eight is it stated that a paralysis of the neck persisted; but it must not be forgotten that many reports did not comprise the further history of the case.

Nervous System.

Paralyzed parts at first flaccid, 106; rigid, 12. Neck rigid and legs flaccid, 1; stiff in joints, 1.

Delirium, 11. Slight, 4; slight at first, 1; slight 2d week, 1; marked, 1; 1st night, 1, and 4 nights, 1; at first, 1; at night, 1; at times, 2.

Insomnia, 56. Marked, 2; on onset, 1; during acute stage, 1; only on account of pain, 2; slight, 6; sleepy, 1; 2 days before death, 1; short naps night and day, 1; at first, 1; 1st 2 days, 1; did not sleep well, 2.

Pain in head, 50. Frontal, 1; constant, 1; only 1st day, 1; slight, 2; at first, 3; 1st 2 days, 1; back, 2; some, 1.

Neck, 59. At first, 1; at times, 1; stiff, 1.

Back, 65. On movement, 1; at first, 1; much, 1; some, 1; tender, 1; lumbar, 1.

Limbs, 71. Left arm, 1; legs, 1; on movement, 1; right leg, 3; thigh, 1; left leg, 3; legs and thigh, 1; hips, 1; marked, 2.

Elsewhere, 15.

Situation and character of pain. Hip and knee on movement, 1; all over when handled, 1; stomach, 1; right leg, 2; left leg, 3; general, 2; left hip, 2; abdomen, 2; arms and legs, 1; upon movement, 1; back and right leg, 1; head severe and other parts, soreness, 1; in muscles, 1; right arm, 1; all over, 1; severe on motion, 1; intense, 1; sharp, 6; uncertain, 1; dull ache, 1; severe, 1; from distention, 1.

Tenderness, 90. Pronounced, 1; cried when touched, 1; slight, 2; exquisite, 1; not at first, 1.

Situation and character of tenderness, cervical and sacral regions, 1; right leg, 1; insertion of the hamstrings, 1; over entire left limb, 1; lower limbs, 16; calf muscles, 1; calf of left leg, 1; movement of legs, 1; over affected parts, 2; neck, 11; paralyzed parts, 1; general, 1; ankle, 1; buttocks, 1; right arm, 1; in all

muscles, 1; epigastrium, 1; hip, 3; spine, 2; limbs, 16; thigh, 6; hyperesthesia of legs and thigh, 1; lumbar region, 4; underside of legs, 1; outer side of leg, 1; abdomen, 5; back, 8; arms, 1; spine throughout, 3; joints, 3; paralyzed parts, 2; upper arm, 2; right leg, 2; left leg, 5; all over the body, 8; right arm, 1.

Restlessness, 82. Extreme, 1; slight, 1; marked, 4; during fever, 1; at times, 1; at first, 1; not when at worst, 1; twitching of muscles when asleep, 1; very, 2.

Irritability, 87. Extreme, 1; marked, 6; slight, 2; very, 1.

Stupor, 13. Last four days, 1; short time, 1; sleepy, 1; 6 days, 1.

Apathy, 33. At first, 1; marked, 1; at times, 5; slight, 1; some, 1.

Photophobia, 9. Some, 1; slight, 4; 1st 2 days, 1.

Convulsions, 4. Slight 7th day, 1; onset, 3.

Retraction of head, 33. Slight, 11; decided, 1; slight the 5th day, 1; muscles of the head seemed paralyzed, 1; marked, 1; some, 1; very little, 1; with convulsions, 1.

Rigidity of neck, 20. With convulsions, 1; not sure, 1; marked during fever, 1; slight, 6; some, 1; at first, 1.

Kernig's sign present, 30. Slight or both sides at first, 1; slight on right leg, partial, 1; bilateral, 1; right, 1; unilateral, 1; at times, 1.

Reflexes: Knee jerk absent, 69; slight, 1; greatly weakened, 1; absent on left side, 5; absent right side, 2; exaggerated, 1; left side diminished, 1.

Wrist. Absent, 17; present, 15; doubtful, 1; lessened, 1; slightly absent on left side, 1; left diminished, 1.

Abdominal. Present, 18; absent, 3; left, 3; right, 1; lessened, 1.

Plantar. Absent, 33; slight, 6; on right foot, 2; absent in right foot, 1; slight in right foot, 1; slight in left, 1; sluggish, 1; absent in left foot, 3; lessened, 1.

Babinski sign. Absent, 5; present, 7; slight, 1; doubtful, 1.

Tache cerebrale. Doubtful, 2; present, 8; absent, 5.

Pupils. Large, 5; dilated, 5; rather large, 1; irregular, 1.

Reaction. Did not react at night, 1; incomplete, 1; slight, 1; impaired, 1.

Ataxia, 6. Doubtful, 1; would not talk, 2.

Tremor, 5. Doubtful, 1; slight in right arm, 1; slight, 1; fine finger, 1.

Paralysis.

Distribution. Face: right, 5; left, 5; eyelids: right, 1; left, 4; eye movements: right, 1; left, 1; fixed, 1; squint: right, 2; left, 3.

Swallowing, 8. Slightly impaired, 2; difficult, 2.

Speech, 13. Weak, 2; thick for three days, 1; difficulty in crying, 1; not able to talk, 1; partial loss, 2; slight, 1.

Neck, 28. Weak, 3; marked, 1; slight, 1; probably, 1; slight rigidity, 1; stiff a short time, 1; rigid, 1.

Back, 24. Rigid, 1; some, 1; slight, 3; temporary, 1; partial, 1.

Abdomen, 10. Doubtful, 1; distended, 3; tender, 1; slight, 1.

Right arm, 29. Upper, 1; complete, 4; slight, 3; nearly complete, 1; partial, 1.

Left arm, 26. Upper, 1; complete, 1; slight, 3; nearly complete, 2; numbness in last stages, 1; partial, 1.

Right leg, 77. Slight, 1; partial, 4; almost complete, 4; complete, 5; 24 hours, 1; entire except flexors, 1; some muscles, 1.

Left leg, 76. Complete, 9; partial, 3; nearly complete, 1; flaccid, 1; slight, 4; some muscles.

Bladder. Complete, 1; flaccid, 1; partial, 2; retention, 1; slight for a few days, 1; involuntary action, 1; slight, 1.

Rectum, 3. Complete, 1; involuntary, 1; constipated, 1; slight at first, 1.

Respiratory muscles. Right, 9; doubtful, 1; slight, 1. Left, 8; doubtful, 1; slight, 1.

Response to Faradic current. Disappearing at once, 8; frightened child so that it could not be used, 1; left leg, 5; right leg, 6; left arm, 4; right arm, 4; left foot, 1; right foot, 1.

Response to galvanic current, 4; very sluggish, 4; retarded, 1; child very irritable, 1; left leg, 7; right leg, 10; left arm, 4; right arm, 4; face, 2.

Galvanic formula inverted, 4.

Paralysis remains. Neck, 4; left side of face, 2; right arm, 5; complete of right arm, 1; right leg, 16; back, partial, 1; left arm, 4; left arm, partial, 1; left leg, 22; bladder, 1; right upper arm, 1; left leg weak, 1; some muscles of arms and legs, 1; considerable, right leg, 1; face muscles still weak, 1; hands, 1; fingers, 1; slight, left leg, 1; slight in both lower extremities, 6; total in both lower extremities, 12; partial in both lower extremities, 7; hamstrings slightly contracted, 1; partial paralysis of thigh and big toe, 1; flexors of left foot, 1; left thigh, 1; thigh, 3; muscles, 1; leg flexors, 1; extension muscles, 2; extension muscles in right and left foot, 1; extension muscles of right leg, 1; shoulder girdle, 1.

Paralysis disappeared. Abdomen, 2; throat, 1; back, 1; some muscles of arms and legs, 1; right fore arm, 1; all, 9; slight left leg, 1; left leg, 26; bladder, 2; neck, 9; right leg, 11; left arm, 6; partial in left arm, 1; fore arm, 1; flexor of legs, 1; face, 1; speech, 1; muscles, 1; right arm, 5; rectum, 1; toes, 1; anterior muscles, 1; thigh, 1; eye, 1; walks fairly, 1; calf muscles. 1; muscles of left leg, 5; back, 8.

Sensation. Diminished, 6; slight, 1. Increased, 8. On left side, 1; to tuning fork, 1; left outer malleolus, some extent, 1.

Cerebrospinal fluid examined, 5. Findings: pressure positive, 2; clear, no cells, 1; negative, 1.

Nervous System. Summary of First Set of 150 Cases.

Paralyzed parts. Flaccid, 106; rigid, 12; delirium, 11; insomnia, 56; pain in head, 50; neck, 59; back, 65; limbs, 71; elsewhere, 15; tenderness, 90; restlessness, 82; irritability, 87; stupor, 13; apathy, 33; total, 46; photophobia, 9; convulsions, 4; retraction of head, 33; rigidity of neck, 20; Kernig's sign present, 30; total, 83. Reflexes. Knee jerk, absent, 69; wrist absent, 17; present, 15; abdominal, absent, 3; present, 18; plantar, absent, 33; Babinski sign, absent, 5; present, 7; tache cerebrale, absent, 5; present, 8; pupils large, 5; pupils dilated, 5; total, 10; ataxia, 6; tremor, 5.

The data concerning the second set of cases, to the number of about one hundred, are added, although they were compiled in many instances from memory, several months after the patients were seen. Such differences as the comparatively few cases where tenderness is noted, although photophobia was so often remarked, may be accounted for in this way. That Kernig's sign was only noted five times, while retraction of the head was declared of fifty-two cases, is a serious discrepancy. In this series of cases, the observation of the reflexes was seriously defective, so that we can attach little consideration to the declaration that Babinski's sign occurred twelve times when we see the knee reflex was remarked upon only five times in all. Again, the pupil reaction was declared to have been " slight" in five cases. The table is, however, appended without further comment.

Nervous System; Second Series, 100 Cases.

Paralyzed parts at first flaccid, 59; rigid, 18; rigid first few hours, 2. Delirium, 6; slight, 3; some, 3. Insomnia, 26; 4 days, 1; for a short time, 1. Pain in head, 77; great deal, 1; severe, 1; some, 1; slight, 1. In neck, 49; rigid at first, 1; some, 1. Back, 56; some, 4. Limbs, 56; some, 2. Pain elsewhere, 6; limbs and chest, 1; all muscles, 7; general, 2; skin, 4; back, 2; joints, 6; muscles, 11; throughout chest, 1; both legs, 2; left hand and limbs, 2; abdomen, 3; right leg, 1; arm, 1. Character of pain shooting, 1; tenderness, 11; some, 4; in limbs generally, 2; not localized, 1; muscles, 3; general, 1; joints, 2; lumbar region, 1; sides and legs, 1; skin, 7; left side of head, 1; arms, 1; legs, 1; all muscles, 2; paralyzed parts, 1; abdomen, 1. Restlessness, 58; very restless first day, 1. Irritability, 60; slight, 1. Stupor, 42; slight, 1; some, 1; later, 6. Apathy, 42; some, 1. Photophobia, 42; marked, 1; some, 3; slight, 2. Convulsions, 12; five convulsions, 1. Retraction of head, 52; slight, 1; some, 2. Rigidity of neck, 21; at first, 1; marked, 1; slight, 1; some, 2. Kernig's sign, 3. Reflexes; knee, right weak, 1; left absent, 2; right absent, 1; increased, 1. Wrist jerk brisk, 1; absent, 3. Ab-

domen brisk, 1; absent, 1. Plantar, left weaker than right, 1; absent, 2. Babinski's sign, 12. Tache cerebrale, 3. Pupils contracted, 1; large, 1; dilated, 1; normal, 1. Reaction, slight, 5. Ataxia, 8. Tremor, 6; first day, 1.

Paralysis. Face, right side, 1; left, 2; along whole cheek finally, 1. Eyelids, right, 1; left, 2. Eye movement, right, 1; left slightly impaired, 1. Squint, right, 1; some, 1; left, 2. Swallowing, 1; impaired, 3. Neck, 9; pain, 1; impaired, 1; right side, 1. Back, 7; pain, 1; impaired, 1. Speech impaired, 7; slow, 1; slight, 1. Abdomen, 2. Trunk, 9. Respiratory muscles, 8; right impaired, 1; left impaired, 1. Right arm, 31; complete, 1. Left arm, 35; complete, 1. Right leg, 88. Left leg, 79; complete, 1; slight on movement, 1. Bladder, 9; retention, 1. Rectum, 6; slight, 2; constipation, 5; doubtful, 1. Response to Faradic current: disappeared at once, 2; yes, 38. Response to galvanic current sluggish, 31; increased, 2. Galvanic formula inverted, 1.

Paralysis remains in left arm, 2; right leg, 1; complete paraplegia, 1; toes, 1; left leg, 11; slight paralysis of muscles of feet, 1; limbs, 2; right leg, 14; back, 3; muscles of eye, 2; some, 2; left hemiplegia, 1; none, 1; muscles atrophied, 1; muscles of lower limbs, 7; left side, 2; muscles of right leg, 5; right arm, 2; partial of both legs, 2; shoulder muscles, 3; very slight, 2; all, 2; partial paralysis of legs with atrophy, 2.

Paralysis disappeared; none, 9; some in feet, 2; partial in legs, 2; lower limbs, 8; slight in left leg, 10; muscles of right leg, 2; all, 2; left arm, 3; back, 2; limbs, 2; face, 1; right arm, 1; bladder, 1; rectum, 1; partial in right arm, 1; muscles of back, 1; of shoulder, 3; slight in right arm, 3. Sensation diminished, 18; markedly, 1; in leg, 1; some, 4; slight, 1. Sensation increased, 3; at first, 5. Spinal fluid, 3.

Treatment.

As to the Treatment, detailed information was rarely furnished. Massage, hot baths, strychnine and calomel were the most frequent entries in the first series of cases. As regards the second series, we can perhaps place more reliance than we were able to do concerning the symptoms reported. There was evidently a change of sentiment regarding the treatment in the period which elapsed between the first and second set of reports; because about a third of the cases of the second series are said to have been treated by galvanism. A considerable number were given potassium iodide, while very few received hot baths.

It was not possible to trace the effects of any particular treatment; for the information furnished did not enable us to gage the severity of the case or to judge what degree treatment had been efficient or persevered in.

Treatment.

	First series.	Second series.
Hexamethylenamine	16	14
Hot baths	45	14
Galvanism	13	43
Alcohol baths	0	2
Faradic current	0	10
Electricity	0	18
Massage	78	89
Strychnine	23	28
Opiates	1	1
Lumbar puncture	1	1
Calomel	22	3
Mercurial inunction	1	0
Potassium iodide	4	28
Exercise	1	0
Antipyretics	3	0
Rubefacients	17	0
Complications	3	0
Subsequent convulsions	1	0
Bromides	0	8
Hyperaemia	0	1
Deaths	9	10

QUESTIONS ASKED BY THE POLIOMYELITIS COMMITTEE OF THE MEDICAL ASSOCIATION OF THE DISTRICT OF COLUMBIA.

Patient's name.

Age. Sex. Race.

Address of patient.

Other addresses, if any, within the two months preceding onset.

Name and address of physician reporting case.

Had there been cases of infantile paralysis in the ancestors or collateral relatives?

Give the following or any other facts bearing on contagion:

Were there any other cases in the household?

If so, give name of patients.

Were these cases in the neighborhood?

If so, give names and addresses.

Had the patient within two months been associated with any person suffering from the following?

If so, give date of exposure.

Infantile paralysis. Recent case. Old case.

Any unexplained febrile attack.

Nasal catarrh.

Other respiratory catarrhs.

Sore throat.

Grippe.

Disturbance of the digestive tract.

Acute joint or muscle pains.

Neuritis.

Choreiform movements.

Landry's acute ascending paralysis.

Herpes zoster.*

Facial paralysis.

Skin eruptions.

* Please report any recent cases of Herpes zoster in your practice, to the Committee.

Give the age and sex of each child in the family.

When did the patient last attend:

Day school. Sunday School.

Play grounds. Moving picture shows.

Other places of assemblage.

Was the patient exposed to:

Flies. Fleas. Mosquitoes.

Bedbugs or other vermin or unusual insects. (Specify.)

Was the food exposed to flies, mice or other vermin? (Specify.)

Was the house well screened?

Were there pet animals? (Specify kinds.)

Any illness among them?

Were there any errors of diet to which the patient's attack might be traced?

Was the diet breast, bottle or general?

Was the milk raw?

Did the patient have any disease during the two months previous to the attack? (Specify.)

Was the patient healthy previous to the attack?

Was there any unusual exposure to: Heat. Cold.

Dampness. Dust.

Had there been, preceding the attack, over-exertion?

An injury. Fall.

CLINICAL REPORT.

What PRODROMAL symptoms, if any, were present? (Irritability, Muscular twitchings, Apathy, Restlessness, Excessive sweating, Catarrh, etc.)

What was the duration of each prodromal symptom?

Date of onset of ACUTE symptoms.

Date of physician's first visit.

Mode of onset.

Duration of acute symptoms.

Course of fever (Furnish chart if convenient).

Any skin eruptions.

Any excessive sweating.

Circulatory System.

Were the extremities cold? Hot.

Was the heart action affected?

Pulse: Rate. Rhythm. Character.

Result of blood examination.

Result of examination of urine.

Respiratory Tract.

Was there nasal catarrh? Sneezing.

Sore throat. Cough. Bronchitis.

Respiration: Rate. Rhythm. Character.

Digestive Tract.

Appetite. Appearance of tongue. Condition of lips and mouth.

Nausea. Vomiting. Gastric indigestion.

Diarrhea. Constipation.

Was there distension of abdomen?

Character of stools.

Was there any other disturbance of the tract?

Nervous System.

Were the paralyzed parts at first flaccid or rigid?

Delirium. Insomnia.

Any pain in the head. Neck. Back. Limbs.

Or Elsewhere. Situation and character.

Any tenderness. If so, where?

Restlessness. Irritability. Stupor. Apathy.

Photophobia. Convulsions. Retraction of head.

Rigidity of the neck. Was Kernig's sign present?

Reflexes: Knee jerk. Wrist jerk. Abdominal. Plantar.
Was Babinski's sign present? Tache cerebrale.
Pupils: Size. Reaction. Ataxia. Tremor.

The Paralysis.

Distribution: Face: Right. Left.
Eyelids: Right. Left.
Eye movements: Right. Left.
Squint: Right. Left.
Swallowing. Speech. Neck. Back.
Abdomen. Respiratory muscles: Right. Left.
Right arm. Left arm. Right leg.
Left leg. Bladder. Rectum.
Did response to Faradic current disappear at once?
Was response to galvanic current sluggish or increased?
Was the galvanic formula inverted?
What paralysis remains?
What paralyses have disappeared?
What sensation diminished? Increased.
Was cerebro spinal fluid examined? Findings.

Treatment.

Was Hexamethylenamine given?
Were hot baths given? Results.
Was galvanism used? Immediate result.
How often? For how long a period?
Give other treatment

Course of case, complications, etc.
Did the patient die? Date of death.
Was autopsy made? Results.

Will you kindly communicate any other facts you may deem important, especially any theory you may have as to the origin of the case.

PROCEEDINGS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

WEDNESDAY, FEBRUARY 1, 1911.—The President, Dr. W. M. Barton, presided; about 60 members present.

Dr. Paul Cohnheim, of Germany, was introduced.

The Treasurer presented his report for January: Receipts, $238.72; expenditures, $92.54.

Dr. D. K. Shute, for the committee, reported resolutions of respect to the memory of Dr. Wm. L. Miller, and stated that the report had been delayed on account of the inability of the committee to communicate with his widow in order to obtain biographical data. The report was accepted, and the resolutions adopted. See page 30, March number.

Dr. Chappell reported as chairman of the Auditing Committee that he had examined the accounts of the Treasurer for the year 1910 and had found them correct. The report was accepted.

Dr. Mulcahy exhibited an *Instrument* which he had devised *for obtaining blood for the Wassermann reaction;* the needles which are ordinarily used to get specimens for smears and Widal reaction do not cause a free enough flow of blood to get the needed quantity for a Wassermann. The instrument was on the order of one that is used in the European clinics. It consists of a small spear-shaped point, about ⅛-inch in length, set upon a convenient holding expansion, the blade being guarded against too great penetration by the abrupt expansion of the handle.

He also showed a specimen of *Hemoglobinuric urine,* from a colored man, a porter at the Union Station, Washington, about 35 years old, who every winter for a number of years had been subject to paroxysms of hemoglobinuria; his general health was good. Dr. Mulcahy demonstrated the guaiac test.

Dr. Williams exhibited the patient whose history had been given at the previous meeting, and whose *tic de salaam* had been demonstrated. He now showed the patient to demonstrate the cure of the affection by the application upon two occasions only of the psycho-motor discipline of Brissaud. This method had been criticised as being impracticable because too time-consuming; it was, however, very rapidly effective in this case, as in the boy shown to the Society two years ago who remained well when last seen, one year ago.

The present case also illustrates that it is not always necessary to find out the exact psychic mechanism of such cases in order to effect a symptomatic cure; for in the present case no psychoanalysis was made. Incidentally it must be said also that it is not possible to cure some cases even after the psychic mechanism has been discovered, in spite of Freud's opinion to the contrary.

In this case the paroxysms were, of course, occasioned by some psychologic mechanism; but the tic itself is a paroxysmal quasi-involuntary contraction of muscles normally under the control of the will. By reëducating the patient to perform these movements in physiologic coördination, a cure of the tic can be attained. This patient was given appropriate exercises to perform, in which the muscles concerned in the tic were caused to contract voluntarily, very slowly, and powerfully, at first when most easy to do, *i. e.,* in the upright position, later sitting and lying. At the same time appropriate explanation and persuasion were employed, the patient being convinced that a voluntary muscle could be contracted and inhibited by will if one knew how and was shown how. This simple psychotherapy sufficed for a cure.

It is unfortunate that tic is so often erroneously diagnosed as chronic chorea, spasm, or merely as nervousness, and treated for long by entirely inappropriate measures, such as arsenic, rest, bromides, surgical rectifications, orthopedic appliances, and sometimes, most foolishly, by "suggestions."

Cases with aberrant muscular movements should be seen by someone versed in clinical neurology who can advise the practitioner as to the proper mode of treatment.

The psychomotor exercises of Brissaud can be supervised by the doctor himself, as great special knowledge is not required to comprehend their principles and to apply them. Indeed, the other case previously exhibited was brought to a successful issue by two senior students in the George Washington University dispensary after two treatments by Dr. Williams.

Dr. S. S Adams knew the patient presented by Dr. Williams, having had the experience of finding the man suffering from as many different symptom-complexes as he had paid visits to Dr. Adams' office; as soon as he was cured of one thing, he promptly got another. Since the man was very discontented with the necessity of living in North Carolina and since continued ill health served to bring him to Washington, Dr. Adams felt very skeptical as to the permanency of the cure of his *tic de salaam.*

Dr. Mackall asked Dr. Williams what kind of bed was occupied by the patient at the time the tic developed; the case reminded Dr. Mackall of certain kinds of contractures of the abdominal muscles caused by sagging beds.

Dr. Martin said that the patient was the same man Dr. Adams had in mind. The man had been suffering with proctitis, with a polyp on one of the valves, and an obstructing valve; Dr. Martin thought he would be able to cure him. The polyp was removed, the obstructing valve dilated, and the obstipation relieved; but later a purulent discharge from the rectum appeared; colitis was present, and although Dr. Martin had referred the man to Dr. Williams for treatment of the tic, at Dr. Williams' suggestion Dr. Martin retained him under treatment for the colitis. He had, how-

ever, wished not to influence Dr. Williams' treatment in any way, so he had abstained from doing anything whatever; he had been amazed at the prompt recovery under the psycho-motor discipline and was much gratified to count the case in his experience.

Gen. Sternberg read a paper upon the "Results of Treatment at Starmont Sanitorium." Discussed by Drs. J. D. Thomas, Claytor, Gwynn, A. F. A. King, Ramsburg, Kinyoun, and Sternberg. See p. 50.

The Chair announced the death of Dr. C. V. N. Callan and appointed Drs. S. S. Adams, Franzoni and H. D. Fry a committee to report suitable resolutions of respect to his memory.

Wednesday February 8.—The President, Dr. Barton, presided; about 75 members present.

The Chair announced the death of Dr. James Kerr and appointed a committee, Drs. W. P. Carr, E. M. Parker and D. K. Shute, to prepare resolutions of respect.

The resignation from active membership of Dr. W. B. Carr was accepted.

Dr. Vaughan presented a specimen of Retention Cyst of the Appendix, with a report of the case. Discussed by Drs. Stavely, I. S. Stone and Vaughan. See p. 68.

Dr. Jack read a "Review of Surgery." Discussed by Drs. Balloch, W. P. Carr, I. S. Stone, Vaughan, T. A. Williams and Jack. See p. 56.

Dr. Roy read a "Review of Internal Medicine." Discussed by Drs. J. D. Thomas, Lee and Roy. See p. 61.

Wednesday, February 15.—The President, Dr. Barton, presided; about 45 members present.

Dr. Stavely presented the following specimens and reported the cases: (1) Remarkably large pus tubes; (2) Dermoid cyst; (3) Premature separation of the placenta. Discussion (mainly upon the last specimen) by Drs. A. F. A. King, I. S. Stone, Mackall, W. P. Carr and Stavely. See p. 70.

Large pus tubes.—The specimens were removed from a white woman, age 25, who was admitted to Garfield Hospital for operation for abdominal tumors. She was very pale, but had a good pulse; there were no other symptoms of interest except mild pelvic pains; no fever, no leucocytosis, and nothing in the history suggested an inflammatory origin of the pelvic condition. On examination, two irregular fluctuant tumors were made out, one on the right side of and behind the uterus, the other on the left, and extending up to the navel. The masses were very plainly visible on inspection of the abdomen, appearing as two tumors with a distinct sulcus behind. A diagnosis of bilateral multilocular ovarian cysts was made. On opening the abdomen, two huge pus tubes were found; the left was removed intact, but the right

mass encroached on the area of the pelvic vessels and had to be emptied before removal could be attempted.

Dermoid cyst.—A woman, age about 30, the mother of one child five years old, was seized with pain low down in the right iliac region, which suggested to Dr. Groover, who first saw her, the possibility of appendicitis. She had some nausea at first; there was no abdominal distention and no fever. At the time I saw her, two days after the initial seizure, her temperature was a degree above normal, and the abdomen was flat. It occurred to us that, on account of the low seat of the pain, it would be well to make a vaginal examination; at this examination the tumor was recognized. A diagnosis of ovarian cyst with infection was made; it was thought that adhesions were developing. The patient was sent to the hospital for observation; there was a leucocytosis of 30,000, gradually dropping. Operation was done at end of a week. The dermoid cyst was found, almost spontaneously amputated by rotation of its pedicle.

Dr. D. S. Lamb read the paper for the evening. Subject: "Monstrosities in the Army Medical Museum." Discussed by Drs. A. F. A. King, Nichols, Shands and Lamb. See p. 72.

Wednesday, February 22.—The President, Dr. Barton, presided; about 125 members present.

Dr. C. W. Richardson reported that the bill to amend the charter of the Society was in a fair way to secure favorable action by Congress, but that certain members objected to the wording on the ground that it conferred too much power upon the Society; read an amendment which would be alike agreeable to the Representatives referred to and to the Society; and he asked authority to request the passage of the bill as amended. It was so ordered.

On motion a vote of thanks was extended to Dr. McLaughlin and the Committee of Arrangements for the agreeable and successful banquet in honor of Dr. King.

Dr. F. R. Hagner read the paper for the evening, presented jointly by Drs. Hagner and Fuller. Subject: "Ehrlich-Hata's 606; with report of 22 cases treated with the remedy." Discussed by Drs. H. J. Nichols, U. S. A., Mulcahy, Hazen, Constas, Lowe, Lochboehler, Kebler, J. D. Morgan, Magee, Polkinhorn, Syme and Hagner. See p. 74.

TRANSPOSED.

Griggs—"The doctor said I must throw up everything and take a sea voyage."

Briggs—"Got the cart before the horse, didn't he?"—*Boston Transcript.*

WASHINGTON MEDICAL ANNALS.

Journal of the Medical Society of the District of Columbia.

Published Bimonthly by the Society, at No. 2114 Eighteenth Street, N. W., Washington, D. C. Subscription price, including postage, $1.00 per year, in advance. Single copies, 20 cents. Advertising rates given on application

EDITORIAL COMMITTEE.

D. S. Lamb, A. M., M. D., *Chairman*, . 2114 Eighteenth Street, N. W.
Benj. G. Pool, M. D., . . . 945 Rhode Island Avenue, N. W.
Prentiss Willson, M. D., ... The Toronto.

Editorial.

Medical History Club of Washington, D. C.—Program for 1910-11. *Officers:* President, Dr. James Dudley Morgan; Vice President, Dr. G. Wythe Cook; Secretary and Treasurer, Dr. Truman Abbe; Corresponding Secretary, Dr. Huron V. Lawson; Executive Committee, Drs. D. K. Shute, P. S. Roy, I. S. Stone and the Officers.

The Hippocrates Society, the object of which is "the cultivation and promotion of knowledge in whatever relates to the science of medicine and surgery," holds meetings on the second and fourth Thursdays of each month from October to May. The membership in this Society is limited to 25. The officers for the present season are: President, Dr. Charles S. White; Vice President, Dr. Thomas S. D. Grasty; Secretary-Treasurer, Dr. Laurence M. Hynson.

May 25. Smoker. President's Address.

Society of Ophthalmologists and Otologists of Washington.—President, Dr. W. H. Wilmer; Vice President, Dr. S. B. Muncaster; Secretary-Treasurer, Dr. R. S. Lamb. Meetings every third Friday in the month from October to May.

Galen Society of the District of Columbia.—President H. W. Kearney, M. D.; Secretary-Treasurer, C. C. Ammerman, M. D.

May 15. Dr. Ammerman, Treatment and sequelae of some of the common diseases of the nose and throat; at Dr. D. P. Bush's, The Henrietta.

October 9. Business meeting; at Dr. Kearney's, 1221 O Street, N. W.

November 13. Business and Case Reports.

The Secretaries of the other Medical Societies of this District are reminded that the ANNALS will publish in the September number the schedules of their meetings for the coming season.

The case of Epithelioma of the Larynx reported to the Society by Dr. C. W. Richardson, and published in the January ANNALS, appeared also in the April number of the *Journal of the Medical Society of New Jersey,* page 574.

ASSISTANT SURGEON IN THE PUBLIC HEALTH AND MARINE HOSPITAL SERVICE.—An examination for admission to this corps will be held May 22, 1911. For further information address the Surgeon General of the Service, Washington, D. C.

TO MORE ESPECIALLY THE MEMBERS OF THE SOCIETY RECENTLY ELECTED.—Copies of the History of the Society can be obtained by addressing Dr. C. W. Franzoni, the Treasurer, 605 I St. N. W. The price, delivered, is $3.00.

AMERICAN THERAPEUTIC SOCIETY.—Twelfth Annual Meeting at Harvard Medical School, Boston, Mass., May 11 to 13, 1911. Dr. H. W. Wiley is President, Dr. N. P. Barnes, Secretary; Drs. D. O. Leech, Barnes and F. P. Morgan are members of the Council. Papers will be read by the following Washingtonians: Drs. Wiley, Kolipinski, L. H. Taylor, T. A. Williams and Mr. Wm. Salant.

DR. ELLIOTT C. PRENTISS, formerly of this Society, now resident at El Paso, Texas, and a subscriber to the ANNALS, has an article on "Duodenal Ulcers" in the Bulletin of the El Paso Medical Society for March, page 27.

THE PAPER ON THE PROGRESS OF GYNECOLOGY IN 1910, read by Dr. Bovée before the Medical Society, January 18th, and printed in the ANNALS for March, was republished in the *Virginia Medical Semi-Monthly* for April.

AT THE FOURTEENTH ANNUAL MEETING of the American Gastroenterological Association in Philadelphia, April 19-20, Dr. Wm. Gerry Morgan of this Society was elected Vice President of the Association.

THE SEVENTH INTERNATIONAL CONGRESS AGAINST TUBERCULOSIS will be held at Rome, Sept. 24 to 30, 1911, under the patronage of the King and Queen of Italy. Information in regard to the Congress can be obtained from the Secretary General, Via in Lucina 36, Rome, Italy.

Dr. Truman Abbé's paper on Ainhum, published in the Annals for November, 1910, appears also in the *Jour. South Carolina Med. Assn.,* April, 1911, page 141.

Dr. F. C. Walsh, of this Society, is also a member and the Secretary of the San Antonio District Medical Society, Texas. His father, Dr. Ralph Walsh, contemplates removal from this city and has offered his library to this Society, which, however, has no place as yet for depositing gifts of the kind. It is to be hoped that the movement toward having a home for the Society will succeed in the near future.

Dr. Wm. Warren Potter, Editor of the *Buffalo Medical Journal,* died at Buffalo, N. Y., March 14, 1911, age 72. At one time he was a member of this Society; see page 292 and halftone in group 27 opposite page 104, of the History of the Society.

The American Proctologic Society will hold its Thirteenth Annual Meeting at Los Angeles, Cal., June 26 and 27, 1911. Dr. T. C. Martin of this Society is a member and is on the program for a paper.

The Annals of May, 1910, contained two lists of active members; one alphabetically arranged, the other by seniority of membership. Since that date the following persons have been added to the list: Drs. Biggs, Bogan, Constas, Edmunds, Hazen, Ingersoll, Manning, Martin, Musgrave, Poole, Reid, Skinner, Sullivan and J. A. Watson. Total 14. The number by seniority is 953. Drs. C. L. Watson and Pole, although elected members, have not yet signed the constitution and are, therefore, not yet bona fide members.

The losses from the list are as follows: By death, H. H. Barker, J. W. Bulkley, C. V. N. Callan, W. B. French, P. C. Hunt, James Kerr, W. L. Miller and H. M. Newman. By resignation: George Barrie, W. B. Carr, H. M. Jewett, J. D. Murray and W. N. Souter. Dropped from the list: A. C. Fitch (since died), Samuel Fry and J. A. Murphy. Total 16.

The American Medical Editors' Association will hold the next annual meeting at Los Angeles June 26 and 27, at the Alexandra Hotel.

The paper by Dr. E. P. Magruder on "Bone grafting and osteoplasty," read before the Society March 30, 1910, and published in the Annals for July, 1910, page 269, was republished in *Surgery, Gynecology and Obstetrics,* August, 1910, page 193.

Books and Pamphlets Received.

Annual report of the Surgeon General of the Public Health and Marine Hospital Service of the United States for the year 1910.

Genaro Escalona; Datas sobre la etiologia del tabardillo. Also: El commemorativo en el tabardillo. Published by the Instituto patologico nacional, Mexico, 1911.

Ernesto Ulrich; El estado anatomico de los musculos estriados en el tifo exantematico en Mexico. Published by the same; Mexico, 1911.

Arthur MacDonald; The scientific study of the criminal.

M. Roberts and F. A. McDermott; Report of an original form of sulphur burner for disinfection. Reprint from Public Health Reports No. 59, U. S. P. H. and M. H. S., 1911.

Edmond Souchon; The preservation of anatomical dissections with permanent color of muscles, vessels and organs. Reprint.

La Tuberculosi; January, 1911; Vol. 2, No. 2.

A. J. Givens; Prevention of nervous and mental diseases through extension of medical inspection of schools; 1911.

C. H. Chetwood; Preliminary report of cases treated by the Ehrlich-Hata, 606, injection. Also: End results following operations for prostatic obstructions. Reprint.

D. S. Booth; Rational psychotherapy.

E. E. Rittenhouse; American Life Waste; where and how it is increasing; 1910.

Reid Hunt and R. de M. Taveau; The effects of a number of derivations of choline and analogous compounds on the blood pressure. Hygienic Laboratory, Bulletin No. 73, March, 1911.

D. W. Hunter; Some phases of asthenopia. Reprint.

R. M. Gremin; The typhoid bacillus carrier; a review. U. S. P. H. and M. H. S., No. 58, 1911.

V. G. Heiser and Robert Oleson; Smallpox and vaccination in the Philippine Islands. U. S. P. H. and M. H. S., No. 57, 1911.

Hygiene of Pregnancy; a letter from the author of this booklet, Dr. E. S. Harris, of Blue Springs, Mo., offers the booklet at 10 cents a copy and will place the name and address of the purchaser on the cover, if 25 or more copies are bought.

Bulletin of University College of Medicine, Richmond, Va.; Series 2, No. 38, 1910.

New and non-official remedies; published by the American Medical Association, 1911.

John Aulde; Chorea. Reprint.

E. P. Magruder; Uremia with terminal cerebral hemorrhage. Also: On grafting and osteoplasty. Reprint.

W. C. Gorgas; Report of the Department of Sanitation of the Isthmian Canal Commission for the month of March, 1911.

N. Hollister; North American fauna, No. 32; The muskrats; Department of Agriculture, 1911.

C. F. Martin and Oscar Klotz; Extensive sarcoma of the heart, involving the bundle of His. Reprint.

Oscar Klotz; Concerning compensatory hyperplasia of the intima. Also: Arteriosclerotic diseases of the media. Reprints.

George W. McCoy; Studies upon plague in ground squirrels. Also: A plague-like disease of rodents. Public Health Bulletin No. 42; April, 1911; U. S. P. H. and M. H. S.

Reviews.

Litora aliena; a series of letters sent to the *Boston Medical and Surgical Journal* by one of the editors, during a recent European trip, and republished in this form. They portray scenes and incidents as they appear and appeal to a physician, and contain much of that rarity in medical literature, reading that is both entertaining and instructive. Published by W. M. Leonard, 101 Tremont St., Boston, Mass. Octavo, 78 pages; price 50 cents.

Obstetrical Nursing for Nurses and Students. By Henry Enos Tuley, A. M., M. D., Professor of Obstetrics, Medical Department, University of Louisville. 73 Illustrations. Price, $1.50. Published by John P. Morton & Co., Louisville, Ky.

The author in his preface directs attention to the frequent complaint, that the nurses are generally overtrained and usurp the prerogatives of the physician. *Improperly* trained more clearly defines the charge, and it is largely the result of much of the more than useless didactic teaching. At most the nurse only receives a smattering knowledge of the subject and this fault is likewise often reflected in the text books on nursing.

The practical suggestions to the obstetrical nurse contained in this volume are brief, clearly expressed and satisfactory, but the scientific matter is fragmentary, and in some places misleading and even inaccurate.

The author rightly emphasizes the importance of the cultivation of tact, exercise of sound judgment and rigid observance of neatness and cleanliness as the essential prerequisites of a competent trained nurse.

This book can be of little service to the medical student, since he must have access to more elaborate treatises for guidance and instruction.

J. F. Moran.

VOL. X. JULY, 1911. No. 3.

WASHINGTON MEDICAL ANNALS

REVIEW OF OTOLOGY.*

BY OSCAR WILKINSON, A. M., M. D.,

Washington, D. C.

There have been no startling discoveries made in otology during the past year, yet that branch of medicine has not been neglected. Many advances have been made along important lines, the greatest probably being in connection with labyrinthine diseases. This is due in a great measure to the research work of Barany, Alexander and Neumann, of the German school. The fundamental work begun by them several years ago has been more accurately studied by many investigators in this country and abroad.

The acoustic and static labyrinths have been definitely differentiated, and the pathology and symptomatology of labyrinthine diseases have been carefully worked out. The symptoms of labyrinthine disease have been more carefully defined, and these diseases are now much better understood.

Symptoms and diagnosis of infection of the labyrinth resulting from suppurative otitis media were recently well described by J. R. Fletcher, Chicago (Sec. on Laryng. and Otol., A. M. A., 1910):

"Circumscribed labyrinthitis is characterized by defective hearing, even to total deafness, or no defect of hearing referable to the cochlea; tinnitus, with or without cochlear impairment of hearing; cochlear impairment of hearing, with or without tinnitus; vertigo coming in attacks, of which, according to Barany, there are two types.

"The first comes without apparent cause, is severe and varies in duration from half an hour to several hours. It is accompanied with nausea, vomiting, disturbances of equilibrium and spontaneous vestibular nystagmus."

The second type is due to outward causes, rapid movement of the head, looking upward, bending forward, going from a heated to a cold apartment, or vice versa. This lasts only for a short

*Read before the Medical Society, March 1, 1911.

time; there is neither nausea nor vomiting, but spontaneous nystagmus and disturbances of vision are always present.

Manifest diffuse labyrinthitis is the result of the circumscribed becoming diffuse through exacerbation of the otitis media.

The distinction between the suppurative and the serous and hyperemic is important. In the suppurative, cochlear symptoms are negative and hearing is completely lost. In the serous and hyperemic the hearing is not completely lost and is recovered spontaneously. Vertigo is so marked that in many cases the patients are unable to stand.

Latent labyrinthitis will show a history of vertigo and nystagmus, either repeated attacks or one of long duration, or both. Hearing may be wholly or partially lost. Spontaneous nystagmus is slight and directed to both sides when looking in these directions. These cases may be mistaken for acoustic neuritis of long standing.

Perilabyrinthitis is associated with acute suppurative otitis media and may also be seen in connection with chronic suppuration of the middle ear. The mastoid is always involved. In the acute process the endolabyrinthitis is hyperemic. When of longer standing the type is more apt to be serous. Positive symptoms are:

Slower gradual onset of diffuse endolabyrinthitis; recurrent deafness, with manifest vestibular symptoms accompanying acute exacerbations of chronic middle-ear suppuration; pain on pressure located particularly over superior part of mastoid process; frequency of associated facial paralysis; Weber test localized in the diseased ear.

Surgery of the Labyrinths.—Operative treatment of the labyrinths, formerly no more attempted by the aural surgeon than that of the lungs by the general surgeon, is now known and practiced when symptoms point to their disease. Hearing and orientation are so closely connected with the labyrinths that by careful observation of the changes in these functions we can obtain an accurate knowledge of the diseases affecting the labyrinths.

For surgery of acute labyrinthitis we have yet to find a procedure which will meet all the requirements of this lesion. We must agree with Kopetxky that the best we have consists in "the total ablation of the petrosal pyramid with its labyrinth, but in this, as in the Jansen-Neumann method, there is a risk of tearing the dura and injuring the petrosal sinuses."

Vertigo and Nystagmus.—Questions of vertigo and nystagmus, hitherto little understood, are now clear and are of special diagnostic value when studied by means of rotation, caloric and galvanic tests.

Vertigo, considered from a diagnostic standpoint, has been well reviewed by Dr. Davis (Sec. on Laryng. and Otol., A. M. A., 1910). He says it is due to a disturbance of the faculty of

orientation exercised through the central and peripheral organs. Vertigo of labyrinthine origin may be associated with nystagmus, and is always rotatory.

Labyrinthine nystagmus may be horizontal, vertical and rotatory, and is characterized by rythmic movements. In ocular vertigo and nystagmus, closing the eyes affords relief.

Otitis Media, Chronic, Non-suppurative.—The treatment of this disease has changed very little in the past year. The relation of adenoid tissue, hypertrophied turbinates and tonsils to chronic otitis media is now so well recognized that no one pretends to examine a diseased ear without looking for these conditions. Deflected septums, exostoses and hypertrophied turbinates are now well recognized causes of chronic otitis media and receive proper treatment at the beginning.

Otitis Media, Chronic, Suppurative.—The treatment of chronic suppurative otitis by suction seems to have gained ground. New instruments have been introduced by which the ear can be cleansed, and the suction method can be used by the patient or by an untrained hand. Probably one of the most beneficial advantages of the suction method is the hyperemia caused by the decreased air pressure of the parts. The renewal of blood to the diseased tissue acts in a beneficial way.

Vaccine Therapy.—Some progress has been made in vaccine therapy in treatment of chronic suppurative otitis and sinus thrombosis. This treatment is, however, of doubtful utility, owing to the inability of locating the specific germ causing the suppuration, there usually being a variety of infections in the same case. The question of time for the repetition of the infection, and the size of the dose to be given, are important factors in this form of treatment.

Regarding vaccine therapy J. C. Beck says "that two years of faithful application in selected cases of chronic suppuration of the accessory sinuses, middle ear and chronic follicular tonsilitis have convinced him that positive cures are rare, while he is equally convinced that its employment in connection with other treatment has been of marked benefit."

Samuel McCullagh, New York (*Ann. Otol. Rhin. Laryng.*, June, 1910), gives an encouraging report of the successful use of the Hiss Extract of Leucocytes. Two cases reported are of especial interest. Both had been operated on for mastoiditis. After the operation the temperature rose in each case, the daily record steadily increasing. One patient showed symptoms of meningitis, was unconscious and delirious; the other developed pneumonia and pleurisy, and death seemed inevitable. After the administration of the Hiss Extract the temperature gradually fell, and both cases terminated in recovery.

Acute Middle-Ear Disease.—The early incision of the drum where secretion has accumulated in the middle ear is still favored

by the majority. Cold applications in these cases are often found grateful, contrary to former practice. Dry heat is often found more effective than moist. Keeping these patients in bed and protecting them from drafts is not only beneficial but of undoubted value. Carbolic acid and glycerine still retain their prestige as antiseptic and analgesic agents. To anesthetize the inflamed drum for operation the use of ethyl chloride has been improved upon by J. C. Koenig. His method, as described in the *New York Medical Journal*, July 16, 1910, consists in the use of an aural speculum having a small canal running its whole length and terminating in an olive-shaped tip to which is attached a small rubber tube. The free end of this is furnished with a tip which is held between the lips of the operator. This arrangement dispenses with the use of the Politzer bag.

Meningitis of Otitic Origin.—This has been well reviewed by Dench, New York (Sec. on Laryn. Otol., A. M. A., 1910). Meningitis may be circumscribed, serous or purulent. In many cases circumscribed meningitis is diagnosed only on the operation table, the operation revealing a collection of pus between the dura and the bone, the existence of which had not been previously suspected.

In serous or diffuse purulent meningitis the inflammation depends on the virulence of the infecting organism. In meningitis of otitic origin early investigation should be made for labyrinthine involvement, and should include the turning and caloric tests for disturbances of equilibrium; the eyes should be examined for nystagmus, and in adults the hearing should also be examined.

Serous meningitis is seldom fatal. Purulent meningitis may be of a slow or rapid type, the latter running its course and causing death in a few hours.

Surgical Treatment of Otitic Meningitis.—Holger Mygind did us the honor to present an excellent paper on this subject before the Section on Laryngology and Otology, at the A. M. A., 1910. He said we should, first, remove the primary cause of the infection; second, completely evacuate the intradural exudate and establish drainage in all cases. He advised lumbar puncture and examination of the acoustic and static functions of the labyrinth in all cases before operating for otitic meningitis. To obtain the best results from surgical treatment of otitic meningitis a radical operation is necessary. After a radical operation and elimination of all diseased tissue in the temporal bone, thrombosis of the sigmoid sinus should be looked for. When found to exist craniotomy is necessary, the opening made so as to expose freely the part corresponding to the attic and the part of the dura which covers the posterior surface of the petrous bone.

Radical Mastoid Operation.—This still has its place in otology, its indications are better understood and it is not as generally practiced as it was a few years ago. The opening of the mastoid

antrum under local anesthesia, where there is a contraindication to a general anesthetic, has become very popular. When an electric burr is used instead of a chisel the operation can be made practically painless.

The opening of all the cells in the mastoid tip is now more generally done. The only objection to this more radical procedure is the greater disfigurement.

While the indications for simple mastoid operation may be very wide, those for the radical operation are rather limited.

Pathology of Mastoiditis as Revealed by the X-Ray.—Sidney Lange (Sec. on Laryng. and Otol., A. M. A., 1910), in a review of the status of the x-ray in mastoid examination, says this is the most accurate method of physical examination and should in most cases reveal the pathological status of the mastoid process.

"The pathological changes which may be noted on a skiagram are: 1. Slight haziness of cell spaces or complete filling of these with something denser than air. These changes represent otitis media, with mastoid involvement, and mild forms of mastoiditis, the cells being probably filled with serum. 2. Marked clouding of cell spaces, indistinctness and partial destruction of cell walls. These changes are found in the severe grades of mastoiditis with pus and bone softening. 3. Loss of structure of the mastoid process in the form of local abscess or of diffuse loss of structure. 4. Increased bone density of the mastoid process, with obliteration of cells and bone defects."

Deaf Children.—It is very gratifying to note that many aurists are giving more attention to these afflicted children.

Dr. Packard writes that "every deaf child should be thoroughly examined by a competent aurist before being placed in an institution. Adenoid growths in the naso-pharynx or diseased conditions of the faucial tonsils which cause obstruction of the eustachian tube or infection of the middle ear should be removed. The labyrinthine condition in deaf mutes should be examined. This would help the patients and also be of scientific value."

As Goldstein remarks, the family physician has much to do with the future of children who are deprived of the faculty of hearing. He is the first who intelligently recognizes the child's defect, and his advice as to the treatment it should be accorded is apt to have considerable influence.

"The fear of an operation is frequently the cause of delaying the removal of adenoids of diseased tonsils. From our knowledge of these conditions today such delays are little less than criminal, and it is here especially that the physician has an opportunity to act as adviser and encourage every measure for the child's mental and physical development."

Otologic Findings after the Injection of Salvarsan.—O. Beck (*Jour. A. M. A.*, February 25, 1911) has examined the ears of over 100 syphilitics after salvarsan treatment. His findings prove

that changes in the internal ear may be observed after the use of the drug. These patients all had ear trouble and were referred to Urbanschitch's clinic. In three cases the labyrinth and vestibule were affected, the symptoms not appearing until five, seven and nine weeks after the injection of salvarsan. None of these patients ever had attention attracted to their ears before the use of this drug. The symptoms in one case were those of a typical Menièreiform cerebral polyneuritis. In another case the vestibular nerve only was affected; there were no subjective vestibular symptoms; the symptoms developed four months after the injection of salvarsan. Beck's opinion of this case is that it indicates a toxic action of the drug on the vestibular nervous apparatus similar to that which Rothig found in mice after being treated with arsacetin. Such symptoms have been found in untreated syphilis but with a tendency to decline, while in the case reported they have persisted. Beck says that ear affections in untreated syphilis are comparatively rare, while they have become unusually common since the introduction of salvarsan. The symptoms in his cases were similar to those in Rille's three cases, which developed ten and twelve weeks after the injection (*Jour. A. M. A.*, January 28, page 311). Beck is of the opinion that persons whose ears are even slightly affected before taking the salvarsan are more liable to develop these nervous symptoms in these organs.

Dr. Polkinhorn commended the review. With respect to treatment mention had not been made of the use of hexamethylentetramine in infections of the aural tract; he had used the remedy in a number of cases with decided benefit.

The early incision of the tympanum in acute otitis media should have its importance emphasized at every opportunity; practitioners still show some tendency to temporize and treat this painful and sometimes dangerous condition with poultices. Poulticing is slow in effect and dangerous in after ills; incision will afford instant relief of pain and will hasten the cure.

Dr. Williams said that there have been reports of involvement of the vestibular nerve after the administration of salvarsan. It seemed to him desirable to reserve opinion upon this point, because there have also been reports of disturbances of the optic nerve following the use of the same remedy. Closer study of these cases has shown that the disturbances have occurred some time after the administration of the salvarsan, while we believe that the drug is eliminated early. The disturbances, as sometimes occurs even after the use of mercury, may be really recrudescences of syphilis attacking the vestibular nerve, which Bonnier believes particularly susceptible. There are many cases of this sort reported in tertiary syphilis. From the few cases reported, and in view of the other considerations just pointed

out, it did not seem to him wise to draw the conclusion that salvarsan causes polyneuritis of the cranial nerves.

Dr. Wilkinson had spoken of localized meningitis after middle-ear inflammations, but he had not said what to do in such cases. It is a question whether anything surgical ought to be done. Dr. Williams had seen a patient with Drs. Dufour and Wellington a week after an operation for mastoid abscess; this patient became irritable and headachy, but there were no symptoms of severe meningitis, except certain localizing signs, viz: diplopia from right abducens weakness, hyperesthesia of right fifth nerve, unilateral nystagmus and edema of right optic disc. The case looked to be one of progressive involvement of cranial nerves by basal meningitis, perhaps of serous type. The outlook seemed unfavorable, and there was much doubt as to what ought to be done. But hexamethylenamin and potassium iodid were given and the symptoms all cleared up. How many such cases may be expected to end thus favorably is what we ask the otologist.

Dr. Wilkinson thanked the speakers for their remarks. As to the occurrence of lesions of the cranial nerves after 606, Beck's article was but a preliminary report and was based on the finding of an increased number of lesions of the labyrinthine tract after the introduction of salvarsan. Of course, no definite opinion on the subject is as yet possible. The time for operating in cases of localized meningitis from inflammation of the ear is a moot question, but where an operation is at all indicated it should be radical and early. Serous meningitis is seldom fatal, but we may not know in advance whether the process is serous or purulent in any given case; lumbar puncture has been advised to determine this point.

CUTANEOUS LESIONS ASSOCIATED WITH THE LEUKEMIAS. ABSTRACT.*

By H. H. Hazen, M. D.,

Washington, D. C.

Recent literature shows no grouping of the cases or study of the literature in the skin changes associated with leukemia, with the exception of an excellent article by Paltauf in Mracek's "Handbuch der Hautkrankheiten." Therefore, in addition to reporting the following three cases it has seemed wise to give a summary of the entire literature. The so-called cases of pseudo-leukemia cutis are not mentioned, because in the vast majority it is impossible to tell whether the author was dealing with Hodgkin's Disease, tuberculosis, syphilis, or with the aleukemic phase of lymphatic leukemia. In many cases it is impossible to tell

* Read before the Medical Society, March 1, 1911.

whether the case reported as leukemia was in reality lymphatic leukemia, leukosarcomatosis (in the sense of Sternberg) or one of the rare cases of sarcoma, with a marked excess of lymphocytes in the blood.

The first case was seen in consultation with my father, the late Dr. D. H. Hazen, a number of years ago. The patient was a man, age 60, who had been ill for about eighteen months. His liver and spleen, as well as all the lymph glands, were markedly enlarged, the hemoglobin was 20 per cent., red-blood cells 750,000 and small mononuclears 250,000. The cutaneous lesions consisted of a marked bronzing of the skin of the shoulders and back, although he had not taken arsenic nor had had any x-ray treatment.

The second case was seen in consultation with Dr. R. T. Holden, by whose courtesy I report it. The patient was a white man, age 57, whose total illness lasted about three months. He first noticed a vesicular eruption on his hands and then swelling of the glands. He later developed a generalized vesicular eruption that went on to local necrosis in places. A blood count showed hemoglobin 85 per cent., red cells 4,500,000 and white cells about 200,000. Of these last 20 per cent. were large mononuclears and 75 per cent. small mononuclears.

The third case was in a patient of Dr. E. R. Strobel, of Baltimore, who has kindly given me his notes. His patient was a man, age 40, who was ill about a year. The eruption consisted of large, infiltrated, red, well-defined lesions that were distributed generally and itched intensely. The leucocytes numbered 80,000, and 40 per cent. were small mononuclears.

In the review of about 60 cases occurring in the literature it can be seen that they can be divided into (1) acute lymphatic leukemia, (2) chronic lymphatic leukemia, (3) spleno-myelogenous leukemia, (4) chloroma, (5) multiple myeloma, (6) lymphodermia perniciosa, to which grouping Dr. Strobel's case belongs, and (7) mycosis fungoides. In relation to the last it is interesting to note that Pardee and Zeit have recently reported a case of mycosis fungoides which later turned to a lymphatic leukemia. The lesions consist of pigmentation, edema, vesicles, papules, nodules, tumors, especially of the face, urticaria, diffuse erythrodermia, macules and pruritus. Histologically the lesions are probably infiltrations of cells escaped from the blood, and not proliferation of preexisting lymphoid tissue. Treatment should be directed towards the general condition and towards the relief of itching and the prevention of cutaneous infection. The x-ray would probably do more to help the skin lesions than any other therapeutic agent.

Dr. J. Dudley Morgan said that the thorough and instructive presentation of the subject as given by Dr. Hazen should not pass without comment. Dr. Morgan had seen many cases of leuke-

mia, but from his standpoint the blood changes and glandular manifestations had absorbed his attention. He had noticed many cutaneous manifestations in these cases but had not given sufficient attention to them. Anemias of all kinds, whether leukemic or not, are apt to be associated with lesions of the skin.

Dr. Hazen did not wish to add anything in closing, except to call attention to a leonine expression in leukemic patients which when recognized may prove a helpful diagnostic point.

PSYCHOTHERAPY AND ITS LIMITATIONS.*

By Edward E. Mayer, A. M., M. D.,

Clinical Professor of Neurology, University of Pittsburg, Pittsburg, Pa.

Though psychotherapy, implying the use of psychologic methods for the cure of disease, was resorted to empirically at all times, it has only been in recent years that psychology has come to be recognized as also bearing upon diagnosis, warranting its recognition and use by physicians. Formerly medical men looked askance at a therapeutic tool which was so much misused and which became the armamentarium of charlatan and religious enthusiast alike. So close was its connection with superstitious ignorance that it was no wonder physicians refused to utilize such measures. But today it is different. In every country scientific investigators have earnestly been working at the mechanism of the human mind, and we are able today to analyze the thoughts and feelings of our patients and to predicate in what conditions and in what manner we may help them by psychotherapy. It is, however, unfortunate that more physicians are not acquainted with these advances, and the burden rests for this reason upon those who are interested to enlist the respectful attention of their medical colleagues to what such measures offer. The analysis of our patient's mental state is as necessary as is the analysis of his physical condition, whether it is normal or abnormal, and such analysis, which is a large part of psychotherapy as today understood, can be done with dignity without deviating from sincerity and honesty. For it must fail in itself if undertaken without a thorough examination of our patient. We well recognize that physical disease produces mental symptoms, just as psychic diseases evoke physical symptoms. To understand this is the first step in real psychotherapy. We find it is necessary at the outset to postulate distinctly its limitations and to recognize that psychotherapy is not a measure to be utilized for organic diseases nor for insanities except to the slight extent

* Read before the Medical Society, May 15, 1911.

that we assume ordinary cheerfulness and confidence to be of therapeutic benefit. For, however, the large class of sufferers who are included under the designations of hysteria, neurasthenia hypochondriasis, fixed ideas and tics, there is no other means as powerful as is psychotherapy. Even in these subjects ill-advised measures are injurious, whether by utilizing religion or miracles or magnetism or suggestion without medical knowledge of what we are doing or what we are coping with, so that there are conscientious physicians who recognize the power in psychotherapy and likewise their unfitness which deters them from its use. Its utilization also must never negative the necessity of careful diagnosis and the recognition of the many physical factors of the disease which must be looked to and treated by appropriate measures. Approaching in this spirit psychotherapy as but one of the many means offered to those practicing the healing art, it seems to me a therapeutic aid that must be recognized by all.

In resorting to such measures in the psychoneuroses we should also well understand what we mean by this term. It includes all phases of abnormal psychology embraced under the disease types of hysteria, neurasthenia and allied states. No localized neurosis or lowered functional activity of an organ is meant thereby, but a psychic state with perhaps physical symptoms secondary to it and dependent upon it. I lay emphasis upon this because many are too prone not only to speak of but to consider such disorders as local ones, perhaps as a result of such faulty terminology as cardiac neurasthenia, sexual neurasthenia, gastric neurosis, etc. Whether an individual, therefore, is neurasthenic, psychasthenic, or hysteric, if after painstaking care in diagnosis we have excluded all possible organic diseases and label him thus, it must mean that his mental makeup is at fault. Such being the case, psychotherapy is not only proper but often necessary. How shall we go about it? Manifestly first must come an analysis of the individual before us, his peculiar ideas and feelings and an understanding of how they have arisen. An alcoholic, for instance, may become sullen and stupid, or loquacious and exuberant or suspicious or delirious. Similarly, a hysterical individual presents various kaleidoscopic pictures in symptoms which in each patient must be elucidated. Therefore we must get at the patient's mental complex, as it is called, ascertain his or her particular worries and fears, and ideas, thoughts, sensations and feelings. These complexes comprise certain broad types—shame, reproach, anger, despair, fear, etc. Not all of these patients furnish your data in conversation even by leading questions, and many methods, according to the needs of the occasion, may be utilized to gain our facts for our psychic analysis. These comprise principally relaxation with mild abstraction, crystal-gazing, autoanalysis through letters, the dream-contents of our subjects and hypnosis. Special methods, like association

and galvanopsychic tests, are perhaps not applicable by the general practitioner. The analysis and its interpretation require patience and knowledge, and its usefulness as a psychotherapeutic measure depends upon the physician's ability to elaborate a personal technic available for his purposes. Every physician should have at least a fair knowledge of such methods and their application or else, like he does with his surgical cases, refer them to those that do. I am not making a plea for the neurologist—any internist may be just as competent in this sphere, which is but a department of internal medicine.

As in all methods used what is called suggestion is spoken of, I must, at the risk of boring you, explain exactly what this word denotes. At the outset one can establish as true the idea that everyone is suggestible, which means influencible by others. Either the spoken word suggests something to its auditor, or the manner in which it is spoken produces a personal response in the listener. With ordinary patients this effect suffices for the physician, as they coöperate in this way with him. But in these ungrateful, unsatisfactory and disliked patients, called neurotic, the physician notes a difference which perhaps he has not bothered to analyze. It is due to their emotional undercurrents, to the fact that beneath their words are ideas, and below their visible emotions are feelings, which are repressing and inhibiting your influence and counteracting confidence. Such patients are egocentric, which implies selfishness and egoism, and to influence them and help them we must know what is going on below the surface of their minds. Psychoanalysis serves to ferret out these states of mind, and happily today we have advanced far enough to be able to "tap the springs of secret memory" and feeling and thus often achieve success in psychotherapy where it was denied us before.

The interpretation of our patient's dreams is one method in use. We formerly theorized much upon how dreams arose, believing them to be mental phantasies without relationship to actual thought, but now we realize that they are logical though often clothed in symbolic language, and that they represent the disguised expression of highly significant underlying psychical processes. In every dream appears some incident of the preceding day, but its groundwork is expressive of some wish or repressed thought of the person who dreams.

The function of a dream is to protect sleep by stilling the activity of unconscious mental processes that otherwise would disturb it. The study and interpretation of dreams carried out in this way serve to give us valuable knowledge of our patient's secret thought and feeling to as great an extent as from hypnotism. Uncover for him this forgotten emotional experience of the past and then he can coöperate with you in subduing its effects, educating him to recognize all the fixed and foolish ideas until the

central symptoms are thoroughly undermined, explored and eradicated. It was Freud especially who showed that the real starting point of a hysteric's discomfort, for instance, has probably been forgotten and must be revived, which implies that there are traces of it in the brain cells. It is this group of traces which we call complexes, and if we can bring them back to consciousness and join to them new and desirable associations and reactions we help to cure our patients. Such is therefore the object of psychoanalysis. The disturbing element is thus not to be discharged but to be side-tracked, which means a readjustment of the individual's mental occurrences. What was the starting point for abnormal fears now becomes an indifferent object of interest, and all its evil consequences are cut off.

We have many methods for ferreting out these complexes, all, however, simple in method and useful, depending upon the psychologic keenness of the analyst. Gazing into a crystal, writing automatically, lying passive and thoughtlessly expressing in words whatever comes to his mind imply a relaxation which will bring lost emotions and thoughts to the surface and enable us to discover them.

A more precise method to reach this result is to have our patient tell us the first idea which comes to him as a result of a word spoken to him. His answer, as well as the time it takes him to do so, is registered by us, with the result that at certain words we find he fails to answer, or does so very slowly, which delay may lapse into the next word. Studying these results at our leisure, we discover there is a definite abnormal change with certain words. These words, moreover, represent associated ideas such as family, money, wife, etc., and reveal that there are emotional factors at work disquieting to the patient associated with the experience these words represent.

Let me cite a few simple examples of such complexes and their reaction :

1. A so-called neurasthenic patient had been treated for some time with the usual drugs and directions concerning exercise, fresh air and diet. This woman, through an analysis of her dreams, was found to have a particular worry which became the dominating factor in her mental life and, analogous to a festering wound, undermined her health and produced as a result sleeplessness, disordered digestion, loss of weight and general tire. She had been married for the second time and, intensely religious, had in some way come to ponder of the resurrection, when her first husband would be waiting for her. What could she do in the next world with two husbands? She began next not only to dwell upon it secretly, but, even repressed and stifled, it would not disappear. Her first husband came to her in her dreams, and then followed the physical symptoms as a natural consequence. Now, this history had never been disclosed to her physicians,

and would not have been to me had I not sought after all possible sources for her fears, nor without it could I have helped her more than did the other physicians.

2. Another of my patients, labeled neurasthenic, had been a well man till two years ago. A wholesale liquor dealer in Ohio, the changed laws forced him out of business. The fact in itself occasioned no regrets, as he was quite wealthy. However, his wife seized this opportunity to influence him to satisfy what had been her longing for years, *i. e.*, to live in a large city, where her children could have a good education and live at home, where she could have music, art and culture. He sold his local interests and came to Pittsburg with his family, but has not been well since. It was not easy to analyze this man's mental state, but I finally elicited that he was homesick for his old home, that he was miserable and lonely here. He had little education, and his wife's plans were not his, and he could not reconcile himself to them. Dramatically, after I had found out his secret, he said: "To be forced to make new friends, to live where I cannot constantly have God's pure air and green grass, to miss being every child's friend, as I was at my home, is more than I can stand. But what can you do? For my children's sake, as my wife has made me see my duty, I must live here, if you call it living." These thoughts meant more to me than merely finding pains and sleeplessness and exhaustion and indigestion, and enabled me to order my advice to him in a rational manner.

3. Another patient, whose physician had been treating her for a long time, had as a daily vision the possibility of her husband coming home intoxicated and abusing her. This would happen now and then, and yet no one suspected this man of being a drinker, and her physician remained in continual ignorance of what was a large cause of her fears and sleeplessness and pains. She acknowledged it was a relief, "now that you have found it out," that she could confide in me.

4. Miss R. was simply a sufferer from headaches, for which her physicians could not find any cause and which resisted all medication. I was failing likewise in ameliorating them until I resorted to some association tests with her and found thereby the emotional state back of her headache. Delayed reactions after home, man and marriage put me on its track, and I finally elicited from her that she was living with a married friend, her family having moved West, and she not caring to give up the position she had—private secretary at a large salary. To this house came a friend of all, played bridge with them, and who desired to marry her. She not only did not like him, but the necessity of meeting him so frequently began to grow intolerable, and yet, because of hesitation at offence, she could tell no one nor move. Every evening she would have the dread of hearing him ring the door-bell, and this would arouse a headache. Lately this physical

result of her emotion stayed with her longer, made her sleep poorly and even persisted in the daytime. To advise her to leave Pittsburg for her family's home in California would have been unacceptable and perhaps unavailing because of the intensity of her feeling, so I attempted to fuse it with pleasant associations, after patiently making her depict the characteristics of this man as she saw them. Following this I showed her how she might read other traits in him, and made her see how her headaches developed from her ideas and how she must submerge and sidetrack them.

I could picture to you many more instances of hidden emotional factors in the lives of neurasthenic and psychasthenic patients. Even if not actual complexes around which have evoluted the chain of physical symptoms present in these patients, they are always what I would call motives which in certain individuals of little resistance suffice to make them ill or to bring out latent psychogenetic states. I do not often find any sexual complex in most of my patients, as a recent school would have us believe is always there, though in some individuals hidden sexual occurrences or thoughts are the source of what we find portrayed as the physical symptoms. Even so, an outlet secured for this suppression is not in itself a cure, but the psychic analysis does enable us to make our suggestion or persuasion particular and pointed in its application, and therefore should do more good than the general psychotherapy of a religious consoler or teacher. Psychotherapy, again, can never dominate, nor replace, medical knowledge, because the psychotherapist treats symptoms. Psychotherapeutic influence may remove the fear of a psychasthenic or the emotion of a hysteric, and this may bring not only momentary relief but a change which may be favorable for general improvement, but certainly the hereditary factors of the neurasthenia and psychasthenia and hysteria are not readily removed by it. Of course, even the treatment of symptoms demands a constant reference to the whole background of the disease. "The depression of the neurasthenic must not be treated like the depression of the melancholic, the obsession of the psychasthenic must not be mixed with the fixed ideas of a paranoiac, the hysteric inability to walk must not be confused with injury of the motor nerves; in short, each symptom has to be treated as part of a complete situation." The efforts of the psychotherapist will move over as large a part of the disease as possible and cover, perhaps, the causes of the disturbances as far as they are of psychical origin. Yet it would remain dilettanteism if we were to accept the popular view that the mere psychotherapeutic aid is a sufficient treatment of the whole disease. The physician has to be much more than a psychotherapist. Our discussion only seeks to point out that whatever else he may be he must be also a psychotherapist.

It is apparent that the knowledge of personality and of the ego is at the basis of such factors. The greatest problem confronting a physician who is treating a psychoneurotic patient is attempting to create the individual into a personality. I mean by this that the aggregation of cells which give us mechanism, if they can be brought together into unison for united efforts, can be made at the service of the mind thus created so that self-conquest and self-culture can be acquired. As I see it, many of these anxieties and worries are simply the remnants left biologically, and to conquer them means to create a new intellect. If we can make an individual see his limitations as a human being, if we can get him to rise above the smaller things of life, if we can secure a negative emotionality which, rising higher than personal feeling, beats and reacts only to racial and national impulses, we have helped him to form a personality. One who has a personality can have no fears nor worries; he has risen higher than the pettiness of selfishness, which actuates this type of sick. He sees himself as one little element in life's tragedy, conscious only of the futility of struggling against the inevitableness of nature. It is, however, apparent that many individuals are born impaired. In fact, some of us cannot separate the element of fear, of miracle, of witchcraft, which have descended to us throughout many generations, producing an individualistic type depicted as obsessions and anxiety neurosis, and creating cults like spiritualism and Christian Science, which could not exist were not this element of human nature so pronounced. Accepting this as true, two facts stand out very prominently in our consideration of the question. First, a physician to treat these subjects must himself have risen above the common aspect of life. Secondly, he must be versatile enough, after having elucidated the personal characteristics of his patient, to teach and lead his patient into new ways of thought and attempt to get him to rise above himself. Just as we consider an infinite God without any bounds or limitations, so must we try to consider a type of man rising higher than man himself, and only in this way can there be hope for each individual.

We must therefore not consider our task done after diagnosing our patient as a nervous type and apply in a generalized manner suggestion and persuasion. That often suffices, especially with those physicians endowed with a magnetic personality, but unless we endeavor to search out the mental mechanism, the words and ideas of our patients, and readjust them to their environment, as well as to organize for them their psychic states, we cannot expect success. How much knowledge of methods of psychopathology or abnormal psychology is necessary is another story where opinions can honestly differ, and I will not enter into it. The confessional interrelations between physician and patient often suffice to reveal sources of worry and fear, and their results are expressed in changed physical functions; but many of our

psychogenous patients are themselves unaware of the fountain springs of their invalidism, and simple questioning and answering will not therefore do more than give you the end results, nor can suggestion and so-called reëducation, which it often is not, suffice as therapy. Practiced in this way it is not scientific and not different from that employed by laymen.

For then exact diagnosis would not be necessary. We employ such simplified psychotherapy in organic cases also, and if our patient's symptoms are bettered, some of the betterment, at least at the start, is due to our suggestions and exhortations. But we must try to positively differentiate organic diseases from a so-called functional state. We are all agreed as to this, but the next step is likewise important. Given a functional disease, is it not necessary to analyze its nature, its attributes, its individual variations? The evidences of a psychopathic temperament must not be confused with the later neurotic expressions grown upon this soil, but due to some emotional factors which may be reached in our psychic analysis. The intensification of some symptoms may, it is true, be the result. Like Banquo's ghost, we may, if not experienced or expert, not be able to down the memories we have stirred up. But more often do we give relief to repressed emotions by leading, step by step, our patient to see how such ideas arose, what the roots are and how they can be eradicated. No fixed belief as to any common source for our patient's worries or fear is permissible. Good judgment in separating the fears resulting as a biological and evolutionary result due to heredity and those dependent upon individual experiences, combined with knowledge of abnormal psychology which speaks for good technic, is the primary essential for psychic analysis. With such a foundation our efforts in therapy will likely succeed. Rest cures, inhibition cures, work cures and all the other physical methods are not to be neglected, but will often be to no purpose unless we have gained an insight into our patient's psychic state and thus the simultaneous promotion of an appropriate mental hygiene. But, on the other hand, the use of psychotherapy without the command and utilization of other principles of diagnosis and therapeutics must necessarily be one-sided. I hope I have made it clear that true psychotherapy is closely connected with physiological therapy, that we do not only appeal to the subconscious, on the one hand, or to persuasion and exhortation, on the other, but attempt to produce harmony in psychic activities. For the spoken words repress or stimulate a brain center, just as bromides or morphine reach brain centers and inhibit them. The drug and the suggestion together may secure an effect which neither alone will bring about, for all hand-maidens of science must be utilized together.

It is, of course, clear to me that this address is incomplete, inasmuch as I have not entered into explanations of the facts I

have presented, and that therefore the mechanism of these mental conflicts, the struggles between instinct and social culture, and their influence on character all need to be elucidated. The modern psychotherapist is for this reason physician, counselor, teacher and confessor, and in this fourfold capacity sees people as they really are, which must precede helping them. If I have, however, aroused the interest of those of you who may have been indifferent or antagonistic to modern psychotherapy, I will feel repaid. For it is the duty of not a few, but of all physicians, to attempt to answer the reproach so well expressed in Macbeth :

> Canst thou not minister to a mind diseased,
> Pluck from the memory a rooted sorrow,
> Raze out the written troubles of the brain
> And with some sweet, oblivious antidote
> Cleanse the stuffed bosom of that perilous stuff
> Which weighs upon the heart?

ON THE NEED OF NEUROLOGICAL TRAINING IN PSYCHOTHERAPEUTIC PRACTICE.*

By Tom A. Williams, M. B., C. M., Edin.,

Washington, D. C.

Of cases referred for psychic treatment, not a few are diagnostic problems requiring all the resources of clinical experience founded upon wide and deep knowledge of the pathogenesis of disorders of the nervous system. Quite often, indeed, a patient thus referred proves to need, not treatment for psychological effects, but the remedying of the somatic disorder which has caused them and which has escaped the notice of or has not been duly appreciated by the practitioner who has referred the case.

Indeed, the main objection to the practice of psychotherapy by laymen, such as ecclesiastics and even our scientific brethren, professional psychologists, has been their incapability to estimate the changing somatic factors of the cases they attempt to treat.

Even medical men admit and deplore their own inexactitude in conceiving, diagnosing and treating nervous diseases. This lack arises from the confusing inexactness of neurological science at the time when most of us studied medicine. As our teachers did not know, we could not learn, since even nowadays the fundamentals can hardly be acquired without much special study in the unravelling of conflicting theories and poorly observed facts.

For instance, the misapplication by Bernheim of suggestion in many cases due to organic perturbation was responsible for much

* Read before the Medical Society, March 15, 1911, as part of a Symposium on "Psychotherapy."

confusion. It arose from his own lack of neuropathological knowledge at that time. Similarly, the picture of hysteria constructed by Charcot was permitted because his lack of psychological training caused him to regard as facts what were only artefacts bred in an environment of suggestion.

To avoid similar errors, *i. e.*, to be efficient a psychotherapist in our day must not only be acquainted with normal and morbid psychology, but must understand the pathogenesis of neurotic states which are not psychogenetic. His knowledge of pathology should not fall below that of any internist with regard to infections and intoxications, cardiac and other visceral diseases, perversions of internal secretions and the sources of reflex irritations. He must know when a case needs special advice or treatment other than his own. The viscera, the organs of special sense, the organs of sex, infectious states may require other aid than his. Even surgical intervention may be needed to remove the cause of perturbation of nervous function.

Now, if the person giving psychic treatment cannot recognize the need of other special aid before the internist, surgeon or other specialist could, he is lacking in the equipment which he ought to have for his special practice.

I cannot forbear adding that even in cases requiring economic or social readjustments in order to relieve psychic disturbances, the biological view point of a physician is more in harmony with that of his professional brethren than is that of the academic or supernaturally-minded.

I am fully aware of the grossly *ex parte* nature of this plea; and I know that instances can be found in support of no matter what contention. But I am confident in leaving to your own judgment the proper appreciation of the striking facts which support this thesis.

Instances where Neurotic Disturbances were due to Cardiopathy.— Case I. A woman of 63 was brought to me because of what was called hysteria. She was agitated to the point of breathlessness, complained that she suffered greatly, and had an awful feeling of impending death. Attacks of what were called "nerves," so far from alarming her friends, only corroborated their belief that her malady was imaginary. I found that she had been made a Christian Scientist by her strongheaded daughter and was dominated by a "healer." They would not consult the general practitioner to whom they applied, desiring a neurologist, perhaps believing that the latter would be more apt to explain the disorder psychologically, so Dr. Ramsburgh sent her to me.

On examination, I found that what they had called hysteria was in reality the agitation which occurs when cardiac compensation fails. I need not describe in detail a syndrome, which is familiar to all of us.

Indeed, mention of such a case would have been superfluous

but for the fact that similar cases have been referred to me by physicians who did not believe that the circulatory disorder revealed by examination was sufficient to account for the nervous perturbation shown by the patient. Hence, not having a clear conception of the mechanism of hysteria and psychasthenia, they thought that one of these disorders might be accountable for the symptoms, and, like wise men, asked for expert advice to estimate this, and to help in therapeusis. Case II, at Parkersburg, W.Va., I saw with Dr. Campbell, a case of "hysteroneurasthenia," which proved to be cardiac hypertrophy due to hyperthyroidism. I have recently seen a case, Case III, with Dr. Wythe Cook in which prostration alternating with crises was entirely due to the compensatory failure of age. In another case, Case IV, Dr. Fremont Smith induced me to attempt hypnosis to give tranquillity and sleep to a patient with severe orthopnoea from asystole. My attempt, of course, failed and was soon given up.

Now, had any of these cases been referred to a psychotherapist without proper medical training, it is not credible that diagnostic assistance would have been given. In consequence, an encouragement of will power, most pernicious to the patient, would have been continued, with disastrous effects to the wearied heart.

Cases of psychologic disturbance due to metabolic toxicosis have been numerous in my practice here.

Instances where "Neurosis" was of Metabolic Origin.—Case V. A physician, aged 68, was referred to me by Dr. Balloch because of a "nervous breakdown." For over a year he had been worrying over the death of his son and the serious illness of his wife and daughter. He was suffering from severe insomnia, tinnitis aurium, numbness and tingling in the toes of left foot and hand, sometimes less markedly in the right. He sometimes lost the ability to distinguish one from two pins between thumb and fingers. His power of endurance, together with sight and hearing, had markedly diminished; and his former optimism had changed into an incapacity for enjoyment. All the organs were normal, but he had lost about twelve pounds, although his appetite was fairly good. He believed that he was not physically ill.

On questioning, it was found that he had slept badly for about five years, waking in the early morning unless he took veronal, of which he used five grains every fourth night. On waking, sad thoughts of his son's death and daughter's troubles made him weep.

Physical Examination.—Reflexes rather active. Motor functions and diodokokinesis well performed. Sensibility normal. Heart normal. Pulse slow and regular. Blood pressure, 160 mm. Hg. Liver rather small. The paresthesias disappear when the parts are stretched, and occur only when he worries.

Diagnosis.—Sclerogenetic toxicosis was diagnosed from the

nature of the insomnia, the paresthesias without sensory defect and the loss of endurance.

Treatment.—A low purine and protein diet was prescribed, and hypnotics were forbidden. In a few days he began to feel better, and now remains quite well, nearly two years later.

Instances Due to Chronic Infection or Intoxication. — Case VI. A man who, to one unacqainted with clinical neurology, had the ear marks of a profound melancholic psychasthenia, was seen with Drs. Main and Prentiss two years ago. Leaving aside the mental symptoms* examination of the sensibility showed a band of hypesthesia on one lower limb in the distribution of two of the lumbo-sacral roots. A layman would have tried to educate the psyche, and valuable time would have been lost. The neurologist injected mercury, and the patient is well.

Hysterical behavior as an index of the development of a major psychosis, dementia precox, for instance, has been not infrequently seen.

Confusional attacks which have been diagnosed as hysteria have been found to be somatic in origin, and inadequate lay psychotherapy has been substituted by intelligent hygiene to the patient's advantage.

The differentiation of a psychic symptom which has originated from and been added to a bodily disability already present can only be made by a properly trained medical man. One without neurological equipment is apt to attempt the removal of something which cannot be removed, viz : a symptom due to a structural deficiency. Instances of this could be given. But time lacks, and I pass to the most striking case of all, Case VII, which is that of a young woman referred by Dr. Barton for an outline of treatment for what he had diagnosed as psychasthenia on account of her fear of going out alone owing to attacks of dizziness which for seven years had troubled her from time to time. As Dr. Wells found no labyrinthine disorder and failed to improve the condition, which, however, varied a great deal and had been much better until about ten months before, Dr. Barton felt obliged to invoke a psychological mechanism and prudently decided upon further advice as to treatment.

On examination the patient revealed not one of the many stigmata of psychasthenia, which I shall not weary you by enumerating. Her dislike to going out was not a phobia, but a perfectly natural dread of falling down and being hurt. I found that the attacks were always preceded by a roaring in the head, that the floor seemed to come up, that she always fell forward, that a severe attack would cause vomiting, that she was sometimes light-headed between the spells and that she sometimes staggered.

* The case was published in full in " International Clinics," July, 1909, *Va. Med. Semi-Monthly*, Nov., 1909 ; see also *Mo. Cyclop.*, " Treatment of Parasyphilis," Dec., 1910.

Reflexes, sensibility and motility were unimpaired, the diodokokinesis being rapid and steady. Rotation provoked no abnormal nystagmus, sensations nor stagger. An apparent dysergia in walking was not confirmed by tests, except perhaps slightly in kneeling on a chair.

The spells sometimes occurred in sleep, were not consequent upon emotion or stress, and were brought to a head by movement when they threatened.

Thus, there were no signs of structural alteration in the nervous system. But in conjunction with the symptoms a severe dermatographia, easy bruisability, a history of provoked urticaria some years ago and sudden attacks of dulling of the voice led me to diagnose a *vasomotor ataxia* of recurrent type, and to suspect that this vascular instability might sometimes affect the labyrinth and be responsible for her vertigo. As it was morbid dilatability (revealed by the dermatographia) which was shown, I recommended the administration of suprarenal gland. This Dr. Barton gave, with a most happy result, as he informed me two months later that the attacks had entirely subsided.

Now, it should be perfectly clear that laymen could not, by the remotest chance, have reached any such diagnosis. That the physician himself did not do so was due only to an imperfect acquaintance with the clinical picture of psychasthenia. For this a physician cannot be blamed in our day, as a comprehensive description of this disorder is accessible only in the nine-hundred-page tomes of Janet and Raymond; and the short description available in English cannot give an understanding of the condition without much supplementary clinical study, which few physicians have time or inclination for, especially as a preliminary knowledge of psychopathology, or some guidance, is required in order to understand the generally complex reactions of psychasthenic persons.

Hence, gentlemen, the need of neurological training in him who attempts psychotherapy.

Dr. Wm. A. White had not prepared his remarks and would merely comment upon some features suggested by the other papers. Dr. Mayer had emphasized the psychical side of disease, while Dr. Williams had emphasized the physical side. Dr. White wished to emphasize the fact that ideas do not arise *de novo*, but that they always arise from some mental state, whether the symptoms back of the ideas are due to a neurologic cause or a purely physical cause. There must be some cause for every fear, every desire, every impulse. A child at birth has no psychologic state: it is merely a complex of physiologic impulses. The psyche grows out of all sorts of impressions and experiences, and these external influences become organized, until the adult character is the end result of all these impressions upon the infant physiologic blank.

When one questions a psychasthenic patient, symptoms will be traced to the most obvious banalities only ; he will surround himself with all the defensive evasions and half truths that society inculcates. Psychoanalysis is merely to get back of the facade of character that an individual habitually exhibits to the public and so to reach back to the fundamental origins of that character. And this is necessary ; for if every mental state has a distinct mental cause antedating it, then unless every psychic or hysteric disorder is traced back to the underlying cause suggestive treatment is merely playing on the surface of things, and the deep currents of pathologic mental mechanism go on uninfluenced. Psychoanalysis and psychotherapy are merely methods which have been developed for the practical uncovering of hidden mental causes of disease and for the practical remedy of those causes where remedy is possible.

Dr. Hickling could only call attention to some points of interest in another way than that in which they had already been presented. The papers should teach that there is a mental side in every patient who comes to our offices for treatment and that this side should not be neglected in our study of each particular case. Even pain is a mental state and cannot be ignored from that standpoint.

In every case we examine the patient for the evidence of some organic disease ; this is essential, for it is the duty of the physician to exhaust every resource to exclude physical disease as the cause of the manifestations. If no physical cause be found, then we are free to pursue the cure on a psychotherapeutic basis. We may find in some cases that the mere establishment of confidence and obtaining a confession of the underlying ideas may be enough to start a cure. If not, then reference to someone specially skilled may be necessary to uncover some hidden complex, unknown to the patient himself. After this complex has been brought up into the accustomed association area, cure may be effected in the same way as in the simpler cases already cited. When the causes have been discovered, and reëducation, persuasion, etc., have been established on proper lines the results are as sure and as marked as in any other department of therapeutics.

Dr. Mayer had little to add to what he had said in his paper ; it was evident that all the speakers held about the same opinions, although expressed in different ways ; the whole question is a neurologic one, from one standpoint or another.

Even after psychoanalysis we may not ascertain in every case all the hidden causes, nor even the right thing ; but we usually accomplish this object, and then the therapeutic attack may be begun on the right basis. Otherwise, treatment is as pointless and as empirical as in any other disease in which the cause is unknown.

Dr. Williams wished merely to make plain that one patient,

whose case had been cited and commented on in the discussion, had not had "a fear of death," but "a feeling of impending death;" the feeling was real and not negligible, and quite separate from the sphere of psychotherapy.

The diagnosis of psychic disease by exclusion is not enough; after it is found that no physical disease is responsible for the symptoms complained of, before psychic methods can be employed to effect a cure the type and cause of the psychic disease must be determined accurately, in some such manner as had been described in the papers.

ACUTE PANCREATITIS: OPERATION, RECOVERY.*

By H. H. Kerr, M. D., C. M.,

Washington, D. C.

C. T.; age, 31; female, married, was admitted to Freedmen's Hospital August 4, 1910, suffering from acute general abdominal pain. *Family History*, negative; *Personal History*, has had two children, no miscarriages, the usual diseases of childhood, habitually constipated; had had indigestion and flatulency for some time. History otherwise negative. August 2 at 10 A. M., while washing at a tub and in perfect health was seized with sudden excruciating pain in the right side of the abdomen. Vomiting began immediately and continued up to time of operation. Her physician saw her at noon; she was in bed lying on her back with her knees drawn over the abdomen and evidently suffering intensely; temperature, 100; pulse, 110; abdomen distended, rigid and tender, especially in the right quadrants. A tentative diagnosis of appendicitis was confirmed by a consultant that evening. One-half grain of morphine failed to relieve the pain. Collapse symptoms were now prominent; patient in delirium and very weak. The next day her condition improved somewhat; less pain and radiating to the left side in the region of the spleen. Vomiting continued and she was admitted to the hospital in the afternoon; temperature on admission, 100; pulse, 110, and respiration, 28; abdomen distended and tender throughout, especially in the epigastrium; urine acid, sp. gr. 1015; no albumen, no sugar and no casts; leucocytes 14,100 and haemoglobin 75 per cent. A purgative enema was effective. Next day the pulse dropped to 90, the pain was less and an indefinite tender mass the size of an orange could be made out in the median line half way between the umbilicus and the ensiform appendix.

The question of pancreatic disease suggested itself, but a second urine examination failed to show any sugar. A Cammidge reaction was asked for, but could not be obtained.

* Reported to the Medical Society, March 29, 1911.

A provisional diagnosis of perforation of a gastric ulcer with localized peritonitis of the lesser sac or acute pancreatitis was made and the abdomen opened on the 6th. A high median incision disclosed numerous areas of fat necrosis in the omentum and posterior peritoneum, which immediately clinched the diagnosis. The mass was easiest exposed by turning up the omentum and transverse colon. The finger was pushed through the parietal peritoneum into the pancreas, which was black, friable and gangrenous. The organ was ripped through its entire length with the finger. A hasty examination failed to disclose any gallstones either in the bladder or ducts. A large rubber drainage tube was inserted and the wound closed. Recovery from operation was slow but uneventful. The Cammidge reaction, positive immediately after the operation, was found negative four weeks later. A sinus which persisted was explored and cleaned out under ether October 1. Patient left the hospital December 17, cured.

The rarity of this condition and the variety of classification of different authors justifies me, I think, in reporting this case. Mayo Robson designates an acute and an ultra acute form of the disease, apparently corresponding to the older classification of acute grangrenous and acute hemorrhagic pancreatitis. As there is much evidence, including the present case, to prove that the latter are different stages of the same condition, I would favor this newer classification. The present case would come under the class of acute pancreatitis. There are some authorities, however, who still describe *apoplexy* of the pancreas. The question as to which appears first, hemorrhage or infection, is unsettled, so we cannot discard this term. The trend of opinion, however, is to look upon infection as the primary factor.

As to the diagnosis, Deaver's statement that it was not made in 90 per cent. of cases probably still holds good. But as a fulminating intra-abdominal condition is recognized and operation is usually immediate, this has but slight bearing on the results. In the less acute cases the reaction of Cammidge is useful, but in the more acute cases it is seldom resorted to. In the present case, the pancreas being suspected, the test was asked for but the laboratory did not contain the necessary chemicals. Dr. J. B. Nichols, whom I met on leaving the operating room, kindly made a test of the urine then in the bladder in his own laboratory and reported it positive. He consented to test the urine again, four weeks after operation, and reported it negative.

Without attempting to review the literature exhaustively I find the reported cases to number less than a hundred, and the mortality to be something under fifty per cent. It seems clear that immediate operation, with splitting and draining of the affected organ, is the best treatment, although cases of recovery without operation have been reported.

In the present case the history of onset is characteristic of acute pancreatitis. The excruciating pain, "like a bolt from the blue," followed by collapse, is the typical onset of the ultra-acute case. The improvement, if any, in the first forty-eight hours marks the transition from the ultra-acute to the acute, and the appearance of the gland, gangrenous and black from extravasted blood, shows the sequence, as I take it, of a gangrenous on a hemorrhagic condition.

Dr. Carr said that Dr. Kerr was to be congratulated on making a probable diagnosis, and on the recovery of the patient. Dr. Carr's impression was that most surgeons put the mortality of this disease higher than 50 per cent., the figure given by Dr. Kerr. The ultra-acute cases are usually fatal. A strong indication of the exact nature of the condition is the presence of bloody serum in the abdomen. Dr. Carr was glad the case had been reported, because such cases with recovery are so rare.

Dr. A. F. A. King expressed his admiration of the report of the case, both for its completeness and its conciseness. So much of the pancreatic tissue was involved in this case it would be interesting to know how much normal tissue was left, also whether any diabetic symptoms have since arisen.

Dr. Sprigg congratulated Dr. Kerr on his diagnosis and the recovery of the patient; such a combination is very rare. Dr. Sprigg had seen only one such case; the diagnosis was probable pancreatitis, and he had operated; the patient lived three weeks, but died finally during his absence from the city.

Dr. Balloch asked Dr. Kerr's opinion as the value of the Cammidge reaction; Dr. Balloch had had no experience with it, but his reading led him to the conclusion that while its presence is confirmatory of pancreatic disease, its absence is not a negative sign. He wished to know how much reliance may be put on it. Dr. Sprigg's case supplemented Dr. Kerr's in that both began very much alike, but that after twenty-four hours, the signs began to diverge; in the one the symptoms abating and making the diagnosis of appendicitis possible; in the other the symptoms going on to greater severity, leading Dr. Kerr to diagnose pancreatitis.

Dr. G. Brown Miller had seen at Columbia Hospital a patient of Dr. Bowen's, upon whom Dr. Stone operated; the case was of several days' standing and the diagnosis had not been made. At the operation bloody fluid escaped from the abdomen and the tumor was found to be a hemorrhagic pancreas. The patient recovered.

Dr. Nichols said that his experience with the Cammidge reaction was not controlled by operative or post-mortem results, but his opinion was that the reaction is not pathognomonic.

Dr. Kerr said that Dr. Miller had spoken of a case seen at Columbia Hospital as one of acute hemorrhagic pancreatitis; the

recovery of the patient showed the probable error of that designation ; it should be called acute gangrenous pancreatitis. The hemorrhagic is the most severe form and is usually fatal; if not it becomes gangrenous pancreatitis.

To Dr. King he replied that it was with a view of determining whether normal pancreatic tissue was left in this case that Dr. Nichols made a Cammidge test four weeks after the operation ; the reaction was found to be present at the time of the operation, but the negative after four weeks, showed that normal pancreatic tissue was left and was performing its proper function. At the time of the operation the organ was very black and friable and much sloughed off ; but there have been no constitutional disorders to show the absence of the gland. He knew little of the Cammidge reaction, only what Mayo Robson says about it, which is that it cannot be altogether indorsed as a practical method of diagnosis.

THE INFLUENCE OF PREGNANCY ON DISEASES OF THE EYE. ABSTRACT.*

By D. Kerfoot Shute, A. B., M. D.,

Washington, D. C.

The paper is essentially a plea for systematic and careful examination of the eyes of pregnant women, by obstetricians, with the view of safeguarding the vision and even sometimes the lives of these women.

The author considers the importance of good vision ; reports several cases bearing on his subject ; quotes from a number of authors on pyelitis in pregnancy ; discusses pyelitis, anemia, asthenopia, retinal hemorrhages, autoxication, increased arterial tension, albuminuric retinitis, and premature labor ; and draws the following conclusions :

1. Albuminuric retinitis may exist for weeks, and even months, without pregnant women complaining of impairment of vision.

2. The retinitis can exist for some time independently of, as well as in association with, symptoms of renal disease ; also, independently of, as well as in association with, albuminuria.

3. The presence of this retinal inflammation indicates a far advanced condition of the toxaemia of pregnancy, or of that manifestation of the toxaemia known as the "kidney of pregnancy."

4. The presence of this disease, in a larger number of cases than is realized, indicates a very grave prognosis as to the life of

* Read before the Medical Society, March 29, 1911. Published in full in the *New York Med. Jour.*, June 3, 1911, p. 1078.

the patient, for the kidney of pregnancy may be followed by chronic interstitial nephritis.

5. As long as the albuminuric retinitis lasts there is danger of vision being irretrievably ruined at any moment and in any month.

6. The ophthalmoscope is the only means by which the *earlier* and *relatively* much less serious stages of toxaemic retinal involvement can be detected. Also, it is the only means by which we may know that albuminuric retinitis even exists.

7. Should the earlier stages of retinal involvement be detected, as they can, by the use of the ophthalmoscope, such remedial procedures can be adopted as may prevent the development of so sinister a disease as albuminuric retinitis; and, also, the necessity of inducing premature labor, in order to safeguard vision, may be obviated.

8. When uranalyses are negative, the presence of pathological arterial tension and pathological leucocytosis are invaluable symptoms of the toxaemia of pregnancy. If increased arterial tension is persistent, as indicated by an abnormally accentuated second sound of the heart in association with a tense and wiry pulse, or as revealed by the sphygmomanometer, an ophthalmoscopic examination of the eyes ought by all means to be made at stated intervals.

9. It is as much the duty of the obstetrician to be practically familiar with the use of the ophthalmoscope as it is that of the neurologist.

10. If the obstetrician cannot use the ophthalmoscope, both his own and his patient's welfare will be promoted by having the coöperation of the ophthalmologist, when there is persistent increased arterial tension, or albuminuria, in a pregnant woman.

Dr. Butler expressed his appreciation of the paper. The subject was very broad and he could only accentuate the picture drawn by Dr. Shute. Obstetricians are apt to say that few pregnant women with albuminuria have retinitis; as a matter of fact, albuminuria is found in from 1 per cent. to 20 per cent. of pregnant women, retinitis in one out of 3,000 pregnancies. Dr. Butler had seen a case with Dr. Kelly; a young woman who appeared to be in full health, but who presented a typical picture of retinitis; Dr. Kelly said that there had been no albuminuria, but a little albumin was detected later. The patient was delivered and vision improved; but only a small proportion of these patients regain normal vision. When the retinal changes appear early in pregnancy the chances for recovery are smaller. In the case cited the woman had appeared in good health, and vision had not long been impaired, but examination showed that there had been a marked retinal change characteristic of albuminuric retinitis. Impaired vision is not always a trustworthy guide. In

true nephritic cases the outlook is not so good; such patients usually die within two or three years. The nomenclature must be changed; the toxemia, not the albuminuria, of pregnancy is the fault with which we are concerned.

Dr. S. B. Muncaster had seen two cases of albuminuric retinitis of pregnancy in the past year. One was brought to him by a country practitioner; she could hardly see at all with one eye, and the other was much involved. This patient was put on Basham's mixture, recovered and went to term successfully. The other case went blind completely just before delivery, but eventually completely recovered.

Dr. Oscar Wilkinson said, with respect to the induction of premature delivery in these cases, that many of them in his experience exhibited serious symptoms six weeks or more before term, but with appropriate treatment went on to term and entirely recovered. Some cases with total blindness may be due to excessive toxemia, without true neural disease.

Dr. Heitmuller congratulated Dr. Shute upon the recovery of the patient cited with double detachment of the retina. Such recoveries are very rare.

Dr. Sprigg said that the Society should be congratulated upon the presentation of the paper. The subject is of intense interest. Pregnancy is an every-day condition, and if there is in the examination of the eyes a method of making an early diagnosis of the toxemia of pregnancy the method is of great value. But we do not ordinarily have the eye grounds examined in the absence of symptoms; of course, with symptoms it is becoming more and more common to have the ophthalmoscope employed. If symptoms progress after appropriate treatment has been instituted, there could be no question as to the propriety of emptying the uterus, no matter whether the time be within the first six or the last three months of pregnancy; slight symptoms may precede a great catastrophe. Patients should be instructed to report such symptoms as flashes of light, persistent indigestion, etc., and these symptoms should be carefully investigated as possible precursors of danger. The kidney output may not show evidence of the danger; he had seen a case without albuminuria in the morning, but with total blindness in the afternoon; the patient was delivered at once, the fetus was dead; the woman died in four hours, but without eclampsia. If the evidence of danger may be found in early examination of the eye grounds, obstetricians owe a debt to Dr. Shute for pointing out the fact.

Dr. Carr commended the paper as a model for a specialist to read before a general medical society. The picture of the mechanism of the toxemia of pregnancy was the clearest and most concise he had ever heard. The reason ocular changes do not follow anemia from acute hemorrhage is that rapid hemorrhage causes death before blindness results. Much more blood in toto

may be lost gradually without causing death, but profound anemia results, and this may cause blindness.

Dr. A. F. A. King felt as Dr. Carr did about the quality of the paper; it was most highly to be commended. Without halt or hitch Dr. Shute had poured forth an avalanche of scientific facts and without repetition. Dr. King pleaded guilty to not sufficiently emphasizing the importance of examination of the eye grounds in pregnancy nor of the influence of pregnancy on ocular disease.

During the throes of labor the veins of the face and head are much congested; the vessels of the eyes also must be much injected. If this pressure is added to the increased arterial tension of toxemia, there is no wonder that retinal edema or hemorrhage may occur. As to bloodletting in toxemia, this is a procedure too much neglected; and this, too, in the face of the known fact that post partum hemorrhage may be salutary in cases of eclampsia. Physicians should not forget that even a small bleeding may do much good.

Dr. Moran said that the gentle rebuke laid upon the obstetricians should not go without the criticism that the ophthalmologists should teach the obstetricians the facts set forth in the paper; this has been entirely too much neglected.

Dr. Prentiss Willson said that a point in connection with the induction of premature labor for toxemia in the months of viability should be emphasized, viz: for the safety of the mother and also for the infant, the chances for life are better when labor is hastened. The danger to the infant is much greater when it is left within the uterus.

Dr. Shute thanked the speakers for their kind remarks. Both Dr. Butler and himself had remarked the fact that most works on obstetrics and on ophthalmology state that the albuminuric retinitis of pregnancy is rare; Dr. Shute doubted if it is so very rare. One writer had found forty-five cases with the kidney of pregnancy, but with no urinary changes to make the condition recognizable. The value of early detection of the eye changes is that so much may be done to relieve the condition by appropriate treatment; and when so recognized and treated, patients suffering with this disease may have life much prolonged. The name albuminuric retinitis is to be unreservedly condemned. The extreme insidiousness of the disease is such that when albuminuric retinitis is reached nothing will cure it but emptying the uterus, and during every moment of delay in employing this measure sight may be irremediably lost. There are other preliminary ocular changes distinctly recognizable before retinitis sets in; there is, therefore, no way to safeguard the pregnant woman except by watching the eyes.

REPORT OF THREE CASES OF PLACENTA PREVIA, WITH SOME NOTES ON THE SUBJECT.*

By J. J. Mundell, M. D.

Washington, D. C.

I am led to report the three following cases of Placenta Previa and offer a few notes upon the subject, not alone on account of the serious nature of the condition and the influence its occurrence has on obstetrical statistics, though this would indeed be a sufficient reason, but also on account of the fact that I myself encountered three cases when I had not yet been practicing medicine three years, a fact which is remarkable inasmuch as a large number of older practitioners who have had considerable obstetrical experience have told me that they have never been called upon to treat a single case.

Its frequency has been reckoned anywhere from about once in 200 cases in hospitals to one in 1,000 in private practice. From seven reports which I have examined, with the total number of confinements 965,468, placenta previa occurred 1,219 times, or once in every 782 cases. It occurs with greater frequency in multipara (8 to 1). The greater the number of children born to a mother the greater is the danger of placenta previa. It has been noticed to occur twice in the same patient (this was so in two of my cases). In reviewing the literature I have not seen any mention whether race or color had any influence in the causation. Endometritis is probably a great factor in the etiology.

The placenta is normally placed only when it lies above the level of the lower uterine segment. Placenta previa is the condition present when the placenta is placed in the lower uterine segment or a portion dips into it. In accounting for the cause of the placenta being located in the lower segment a number of writers have certainly taxed their imaginations. There is no great uniformity of opinion as to the mode of formation of placenta previa. Under normal conditions when the impregnated ovum enters the uterine cavity the decidua is swollen and softened and formed in ridges, into one of which, in the upper portion of the cavity, the ovum attaches itself. When there is an imperfect formation of the decidua, which probably is true when there has been a chronic endometritis, the ovum is carried down to the lower uterine segment to attach itself. The decidua is probably poorly supplied with blood in such cases, thus causing the placenta to spread out over a larger area than normally, and it thus frequently encroaches upon or completely covers the internal os. The liability to the complete type seems to increase with the number of pregnancies.

* Read before the Medical Society, April 5, 1911.

If all cases could be diagnosed before hemorrhage occurs the mortality would no doubt be greatly diminished, but it is occasionally true that the condition is unrecognized until a fatal hemorrhage occurs. Hemorrhage is the cardinal symptom of placenta previa, and any antepartum hemorrhage of whatever amount or character should be a warning to the obstetrician to suspect placenta previa. The hemorrhage may come on at any time, without warning. Sometimes the patient may be asleep and awakens to find herself lying in a pool of blood. Hemorrhage is usually not accompanied with pain. It may occur at any time during the pregnancy. The initial hemorrhage in the central type occurs during the seventh month in about 50 per cent. of all cases, in the incomplete type usually during the eighth month, and in the lateral type very often it does not take place until during the second stage of labor. The first hemorrhage may be profuse and cease suddenly or there may be a continuous small amount of bleeding. The first may be fatal or there may be a recurrence at varying intervals. There is usually a great deal of mental disturbance. It is a well known fact that a great number of abortions are due to this condition, and it is also one of the causes of the so-called menstruation during pregnancy.

During the first six months of gestation the upper segment of the uterus is more especially developed, while during the last three months the lower segment is more especially developed, which probably accounts to a certain extent for the hemorrhage during the latter part of gestation. Also the walls of the blood-vessels are not so very strong and are under a greater pressure than when the placenta is normally placed; consequently, they cannot stand the strain of the constant contractions of the uterus, which are stronger during the latter months of gestation. Of course, when dilation of the os begins during labor, hemorrhage is inevitable from the tearing away of the placenta from the uterine wall. The hemorrhage must be diagnosed from that due to growths in the parturient tract, erosion of the cervix, rupture of the uterus and accidental hemorrhage, which is hemorrhage due to separation of the normally implanted placenta. This condition can usually be made out by a vaginal examination, palpating the placenta. On account of the placenta occupying the lower uterine segment it thus interferes with the fetal head engaging in the canal, and in this way often gives rise to malpresentations and malpositions. Postpartum hemorrhage is prone to follow these cases.

The damage to life is greatest in the central type, next in the partial, and least dangerous in the lateral. Of 8,448 cases of placenta previa collected from twenty-five different sources, comprising all types and treated by all methods, the maternal mortality is 10.6, and the fetal mortality is 60.1 per cent.

At the outset of the consideration of the treatment of placenta previa it must not be argued that the mother's life is of more consequence than the child's and, acting upon that hypothesis, proceed with measures which save the life of the mother and at the same time inevitably destroy the child. The method adopted must as far as possible be directed towards saving both mother and child.

I will first consider the treatment by obstetrical measures. In the 8,448 cases above mentioned the treatment used in the great majority of cases was tamponing. The danger in such a practice is, as is evident, sepsis, and this was stated to be the cause of death in from 10 to 20 per cent. of the cases. If a case is recognized early, before viability, it may be permissible to temporize—rest in bed most of the time, but always under close observation. It is best to remove the case to a hospital just as soon as the diagnosis is made. Having the patient in a hospital it is thus safer to delay a longer time in order that the child may have more chance to survive after delivery. A great factor in the fetal mortality is prematurity. But having a case with a viable fetus (most of the cases when first seen have reached this period of gestation) it is agreed by practically all authorities that labor should be induced, especially in the central type. In the marginal variety there will probably not be so much danger in allowing the case to go until the first stage of labor begins.

In the marginal cases sometimes all that is necessary is to rupture the membranes, allowing the escape of a large quantity of amniotic fluid. This may set up strong uterine contractions and cause the presenting part to engage and by pressure check the hemorrhage; should that not occur it is well to insert an elastic bag into the fetal sac, fill the bag with sterile salt solution, keep up a steady and very gentle traction on the bag and wait for dilatation of the cervix. This will occur usually in a couple of hours. It is of the utmost importance that thorough dilatation be secured before delivery be attempted. Too rapid and too forcible extraction is frequently mentioned as a cause of death, due to hemorrhage from cervival tear. By this method Hawes, of Vienna, treated 246 cases, with a maternal mortality of 5.6, fetal 30 per cent. Kroing, of Berlin, treated 380 cases, with a maternal mortality of 6, fetal 33 per cent. Dr. Fry, of this city, has had about 40 cases with only one death using this method. These statistics relate to both types of placenta previa. Therefore in the marginal type the mortality should certainly be very low.

In the central variety the danger from hemorrhage is tremendously increased, and all measures used are going to increase the flow temporarily. In such cases the placenta should be pierced and the elastic bag inserted through the opening into the fetal sac and inflated. Gentle traction will usually control the bleeding.

As long as the hemorrhage is controlled wait for sufficient dilatation before proceeding to extraction, which is best done by forceps. The adoption of this method, and it is being done pretty generally, will certainly reduce the general mortality in these cases.

About ten years, or so, ago Cæsarean section for placenta previa had many strong advocates, but for the past few years these seem to be dwindling in number. The consensus of opinion now seems to be that Cæsarean section is rarely indicated in the treatment of placenta previa. Given a case of a central attachment in a primipara, who has had a large hemorrhage, which has not debilitated the mother or the child, which is viable, the os rigid and patient not exposed to infection by reason of previous tamponing: this would be an ideal subject for abdominal section. It is estimated that such a case is rarely seen, probably in about 5 per cent. of all placenta previa cases.

Durrhsen's hysterotomy for vaginal Cæsarean section has been performed a number of times for the condition, but the claims of its advocates and their results are not favorable for its adoption. I collected 304 cases of abdominal Cæsarean section from ten reporters, with a maternal mortality of 15.6 and fetal mortality 54.8 per cent. Thus, while reports from some few isolated cases may be brilliant, when a large number of cases is collected it is seen that the maternal mortality is increased while the fetal is not materially diminished.

In view of these facts, the method of treatment which offers the best results, both to mother and child, is the use of the elastic bag—the de Ribes, the Reynolds or the Vorhees—under aseptic conditions, of course, and preferably in a hospital.

I saw the first case with Dr. Pyles, through whose courtesy I am allowed to report it. Mrs. W. (white), age 30, Para IV. Normal pregnancy. Confinement was about due, when one night patient was awakened about one hour after retiring to find herself bleeding. When she was seen she was apparently almost exsanguinated, lying in a pool of blood; the bed was saturated and there was a large pool of blood on the floor. The cervix was well dilated, membranes intact and a vertex presentation. Placenta in lower left portion of uterus posteriorly. It was of the lateral type. Membranes punctured, version and extraction with very little difficulty. Both mother and child made good recovery.

Case 2.—Mrs. M., age 46, Para XII. Placenta previa occurred in her last pregnancy about two years previously, at which time she was treated by Dr. Ashford at the Washington Barracks. The patient had been bleeding not very profusely for a couple of weeks when I first saw her, at which time gestation was just past eight months. She was confined to bed at Columbia Hospital for a few days and an examination made. Cervix soft and

dilated to about the size of a half dollar, but I could not palpate the placenta. She had more or less bleeding constantly for the first few days in the hospital. On about the fourth day she had a very profuse hemorrhage, which necessitated the House doctor, Dr. Breckinridge tamponing. A few hours later the cervix was well dilated and version performed, under anesthesia, but the child was stillborn; placenta was felt on lower right side of uterus. Mother made a good recovery.

Case No. 3.—Mrs. H., aged 26. Para O, misc. III. I had this patient under my observation from about the end of the fifth month of gestation; she had been flowing at frequent intervals for about one month preceding. She continued to have periodical attacks of flooding, which increased in frequency and severity up to the eighth month of gestation, when she entered Providence Hospital, where Dr. Kelley examined her and confirmed my diagnosis. The cervix was soft, but only slightly dilatable. With the assistance of Dr. R. Y. Sullivan, about 9:00 P. M. on the evening of the patient's admission, the placenta, which was well over the whole cervix, was punctured and a de Ribes bag, upon which was kept constant traction, inserted. At 12 o'clock dilatation was sufficient to permit version and extraction. Child died in about one hour. Mother made a good recovery. One year later this patient had an incomplete abortion. A curettage was performed for retained secundines and a portion of placental tissue was found adherent to the lower portion of the uterus.

Dr. Moran congratulated Dr. Mundell upon the results obtained by him in the treatment of his cases, but took exception to the employment of expectant treatment; there is too much danger to the mother involved in such a plan, and as most cases come on after viability, the child is endangered also by delay. The proper treatment depends upon the condition of the cervix; if dilatable, rapid dilatation, application of the forceps, and rapid delivery is the best plan; if not dilatable, the best method is to puncture the obstructing placenta and perform version. There is a limited field for Cæsarean section in these cases. Bipolar version is the proper form of version, but it sacrifices the child, it being necessary to use the child as a plug. Müller advocates ligation of the uterine arteries and then leisurely extraction of the child.

Dr. Fry was always interested in the subject of placenta previa. It has been demonstrated that there is a successful method of treating these cases. Ten years ago he had reported 14 consecutive successful cases, 9 of the 14 having been treated by the bipolar method of version and slow extraction. He has had 35 consecutive successful cases; the thirty-sixth died. Reports show that only 3 per cent. of the cases need be lost, yet men are con-

stantly advocating the use of podalic version, a method which should not be employed. Statistics indicate that the mortality attending Müller's method of ligation of the uterine arteries is 14 per cent. Dr. Fry could see no reason for hunting new methods of treatment when the bipolar version will save 97 out of every 100. When the os is dilated enough to admit one finger, then bipolar version can be done; the delivery is accomplished by extremely slow dilatation and extraction of the child as dilatation admits. This method may sacrifice a few more children; but the fetal mortality is 50 or 60 per cent. anyhow, and more rapid delivery will sacrifice the mother. The mortality is due to antepartum hemorrhage, post partum hemorrhage, or to sepsis. Rapid delivery gives rise to lacerations and thus causes greater danger of both these causes of death. The objection to tampons and rubber bags is that they may give rise to infection. In a series of Porro operations with much preliminary obstetrical treatment the mortality was 20 per cent.; in another series with no preliminary treatment, the mortality was only 7 per cent.; this shows the influence of the tamponade and the introduction of bags, etc., upon sepsis.

SCHOOL LAGGARDS. SOME COMMENTS ON THE LOCAL SITUATION.*

By H. C. Macatee, M. D.

Washington, D. C.

The present public school system has been evolved from the necessities and the experiences of its peculiar work through many years. The adaptations of administrations, methods and curricula which constitute the steps in this evolution must, of necessity, have origin in the constructive labor of those who have had the current educational work to do. Such men and women are, of course, professional educators, but, as working in the domain of public education and under widespread compulsory-education laws, their profession has become specialized and charged with larger responsibilities than under older, or present-day private systems.

As in all professions, public school educators contribute severally their varying, or conflicting, talents to the melting-pot from which year after year is poured forth that particular alloy which for the moment represents public school education. And the product of the melting-pot may safely be considered as the best that may be had as the resultant of internal progressive effort and external inertia. Out of this metal is fabricated, then, the essential structure of the public school systems of our various cities as

* Read before the Medical Society, May 10, 1911.

we find them today. We may conclude (1) that the methods of teaching are the best that experience has thus far devised; and (2) that the amount of schooling given is the least that prevailing public opinion deems wise to give to children who are to make up our citizenship.

Experience, however, does not stop. Educators have for a number of years been disturbed by the fact that a large number of public school children (33 per cent. in the entire country) are above the normal age for the grade they are in. "In our city school systems most of the children enter the first grade at the age of six or seven. Some of them are promoted each year and reach the eighth grade at fourteen or fifteen years of age. Others are not regularly promoted from grade to grade. They fall behind and at the age of fourteen they find themselves, not in the eighth grade, but in the fifth or sixth. This falling-back process is termed retardation,"* and constitutes an educational problem of great importance in effect and of great difficulty in solution. "The importance of the problem, its evidently close bearing on the question of the adaptation of the school to the needs of the child, and the marked lack of definite information bearing on the question were the forces which impelled the Russell Sage Foundation to undertake * * * an investigation into some phases of the 'adaptability of the school and its grades to children.'"*

CONDITIONS.

As a result of this study it was found that on an average the country over, 33 per cent. of all the school children belong to the class "retarded." These children are serious problems for the teachers; "they are misfits in the classes, require special attention if they are to do satisfactory work and render more difficult the work with the other children."* "It is not at all a problem concerning a few under-developed or feeble-minded children. It is one affecting most intimately perhaps 6,000,000 children in the United States."* The later results of retardation are as serious as the present effects upon classes; for it was found that when retarded pupils reach the age of fourteen (the usual end of the compulsory attendance period) when they are in "the fifth or sixth grade instead of in the eighth, they rarely stay to graduate."* This is important; for if the whole common-school course is the least schooling that ought to be permitted, only a small proportion of the children passing under the operation of compulsory education laws are getting what it is designed they shall have, "the general tendency in American cities being to carry all their children through the fifth grade, to take one-half of them to the eighth grade, and one in ten through the High School."* This dropping out process is called "elimination."

* All quotations from Ayres' "Laggards in our Schools."

A second end result of retardation is that in the lower grades many pupils will be doing the work of the grade for the second, third or fourth time; such pupils are termed repeaters. The average percentage of repeaters in the country as a whole is about 16, which means that "we are annually spending about $27,000,000 in the wasteful process of repetition in our citites alone."*

The computations on which the foregoing findings were based were most carefully done and the largest statistics available were used.

The ideal to be desired for the schools is that of every 1,000 pupils who enter the first grade 100 per cent. will pass into the second grade in the second year, and all of these will be passed from grade to grade, year after year, until the eighth grade is reached by the whole original group of 1,000 in the eighth year.

As will be apparent at once, the ideal will be impossible, because the factor of death will invade the original 1,000 before eight years will have elapsed. The annual death rate for the United States for the ages 5 to 15 (Census of 1900) was 3.7 per mille, so that in the eight years the decrease of the class will be between 26 and 27. The death loss is only one part of a two-fold factor, termed the factor of population; the other part being the natural annual increase of children of the age of the first grade through increase of the local population. The number of the children in the eighth grade this year cannot be compared with the number of children in the first grade this year: for example, there were in the United States in 1900 1,787,019 children seven years old and 1,556,112 children fourteen years old; that is to say, after the passage of seven years more children per annum are born, and of the fourteen-year-old children some have died. Stated in terms of 1,000 pupils, we find that for every 1,000 pupils entering the first grade, the combined factors of death and population increase will have diminished the relative size of the eighth grade to 871; or, in other words, if the original 1,000 could go through to the eighth grade without any loss, when they reach the eighth grade there will be 1,148 children seven years old to enter the first grade.

Retardation.—It has been pointed out that children do not advance regularly from grade to grade and that this lagging in regular progress is called retardation. This constitutes a third factor in grade distribution, and in part brings into the situation still a fourth modifying factor, viz: "elimination."

It was desired to know how actual conditions differ from the ideal and from this ideal as modified by natural factors. No statistics bearing directly on these questions were available until the study of Ayres, under the Sage Foundation, from whose work these data and tables are largely drawn.

Careful study of existing statistics led to the conclusion that

* All quotations from Ayres' "Laggards in our Schools."

in the average school system about 80 per cent. of the pupils will be regularly advanced at each promotion period and about 20 per cent. will fail. If every year 20 per cent. fail of promotion, the first grade will contain not only 1,000 pupils (the figure supposititiously used in the illustrative ideal class), but 20 per cent. of last year's class, some more held over from two years ago, and a few held over three years or more. That is to say, in practice, on a basis of 1,000 new pupils annually, the first grade will contain about 1,250 pupils. If nothing happened to cause these pupils to drop out of school altogether, the grades clear through to the eighth grade would each contain 1,250 pupils. But the factor of elimination enters and must be added to the other variants of death and population increase.

The age distribution of the pupils in the schools of 58 cities in the United States was studied, and as a result it was found that the variation of the age groups in the earlier years was slight, but that there was a marked decline at the ages of 14, 15 and 16. This may be seen in the table immediately following:

Decline in Attendance, ages ten to sixteen, in 58 cities.

*Relative figures.**

Age.	Pupils.
10	104
11	103
12	100
13	90
14	60
15	30
16	15

This means that as a rule in elementary schools 10 per cent. of the children will have left at 13 years of age, 40 per cent. at 14, half the remainder at 15, and again half of these at 16.

If these children of 14, 15 and 16 years of age were all leaving school having completed the eighth grade, one would be satisfied that no great harm was coming from retardation; but the word retardation causes one to revert to the previous finding that children of these ages are present in the lower grades in considerable numbers and the loss in enrollment affects these laggards as well as the graduates.

Ayres has shown the effect of this combination of factors very clearly in a table in which the foregoing results are tried out in a "supposititious case * * * where 1,000 pupils enter the schools at the age of 7 each year, where there is a uniform rate of promotion of 80 per cent., and where 10 per cent. of the pupils leave at the age of 13, 40 per cent. at the age of 14, 50 per cent.

* All quotations from Ayres' "Laggards in our Schools."

of the remainder at 15, and half the residue drop out at 16 years of age." The resulting age and grade distribution are shown in the following table. (Copied from Ayres: "Laggards in Our Schools.")

Age and grade distribution. Stationary population. Retardation and elimination both operative.

Grade.	Age, 7 y.	Age 8 y.	Age. 9 y.	Age, 10 y.	Age, 11 y.	Age, 12 y.	Age, 13 y.	Age, 14 y.	Age, 15 y.	Age, 16 y.	Total by grades.
First	1,000	200	40	8	2	...	...	...	...	...	1,250
Second	...	800	320	96	25	5	1	...	...	...	1,247
Third	...	...	640	384	150	50	13	1	...	...	1,238
Fourth	...	...	...	512	413	203	72	17	2	...	1,219
Fifth	...	...	...	..	410	412	221	68	14	2	1,127
Sixth	...	...	...	...	...	328	356	166	45	10	905
Seventh	...	...	...	...	...	...	237	221	85	27	570
Eighth	...	...	...	...	...	...	...	127	101	44	272
Total by ages.	1,000	1,000	1,000	1,000	1,000	998	900	600	247	83	7,828

We have here the picture of conditions as they actually exist in the average American city; a picture of overcrowding in the lower grades and depletion in the upper ones.

It has further been found by a study of the enrollments in many cities that the enrollment of the first grades in any year does not at all represent the beginners in that year; the combined statistics of 59 cities show that the per cent. ratio of enrollments in the various grades to the number of beginners stands as follows:

Grade.	1	2	3	4	5	6	7	8	High School Year.			
									I.	II.	III.	IV.
Ratio to beginners, per cent...	173	129	128	120	106	90	71	51	40	19	14	10

These figures indicate that about all the pupils remain in the schools to complete the fifth grade, about half drop out at the eighth grade, and one in ten is carried through the High School.

The cause here is that "the lower grades are in large measure made up of children who do not advance as they should. The stream of children advancing through the grades is dammed so that these low grades are abnormally swollen. The upper grades, we find, have in them less than 100 per cent. of the annual number of beginners, chiefly because many of the children are retarded in the lower grades. At the end of the compulsory-education period

they find themselves still far from graduation. They are humiliated and discouraged by their lack of success and find the work of the grades they are in most distasteful. As the law no longer compels attendance they drop out."*

The school-laggard problem involves, then, serious economic and civic considerations: in terms of manufacture, only 50 per cent. of the raw material passed through the educational plant is turned out as finished product if the eighth grade be regarded as the end of the essential process, and only 10 per cent. if the High School is required to add a standard polish.

At this point it is desirable to examine the situation as it affects this city. The table which follows represents the numbers of children present in the various grades of the elementary and grammar schools and by years in the High Schools, according to the Report of the Board of Education for 1908; in parallel columns, the proportional enrollment on the basis of 1,000 is shown.

Grade.	White enrollment.	Basis of 1,000.	Colored enrollment.	Basis of 1,000.	Total enrollment.	Basis of 1,000.
1	4,575	1,000	3,475	1,000	8,050	1,000
2	4,332	925	2,787	802	7,119	884
3	4,095	892	2,105	605	6,200	770
4	4,268	911	2,012	579	6,280	780
5	4,013	8 7	1,650	474	5,663	703
6	3,578	782	1,312	377	4,890	607
7	2,963	647	986	283	3,949	490
8	2,563	560	761	219	3,324	413
High School Year.						
I	1,691	369	504	145	2,195	272
II	1,105	241	325	93	1,430	177
III	524	114	172	49	696	86
IV	369	80	119	34	488	60
Total	34,076		16,208		50,284	

The figures indicate that the average results as found by Ayres obtain here, viz: about 50 per cent. finish the eighth grade and about 10 per cent. complete the High School course. Considerable variations exist between the figures for white and those for colored children, as might be expected. Using the enrollment for the fifth grade [see table, page 28] as an indication of the number of beginners, it is found that 63 per cent. of the white children finish the eighth grade, and of the colored children, 45 per cent.

Causes.—There are many causes for retardation. Some of these are purely educational and some are both educational and medical. For the reason that many of the causes must be recognized by the physician and many of the remedies must be applied by him I have introduced this subject to your attention.

* All quotations from Ayres' "Laggards in our Schools."

From the educational side, some of the causes may be seen to lie within the five propositions formulated as a result of the studies of Ayres, so extensively quoted from already:

"1. The number of children who make slow progress is far greater than the number of those who make rapid progress, and the time lost by the former is very much greater than the time saved by the latter.

"2. From the available data it appears safe to say that for every pupil making rapid progress there are from eight to ten making slow progress, and for every term gained by the rapid pupils from ten to twelve are lost by the slow ones.

"3. According to the New York investigation, among 100 retarded pupils thirty are retarded because of late entrance; thirteen because of late entrance and slow progress; and fifty-seven because of slow progress alone.

"4. The courses of study of our city school systems are adjusted to the powers of the brighter pupils. They are beyond the powers of the average pupils and far beyond the powers of the slower ones.

"5. The average pupil cannot complete the work of eight grades in eight years. So far as can be ascertained, in no city does the average child regularly succeed in doing each year's work in one year. The average child in the average city school system progresses through the grades in ten years."

For our purposes, educational causes may be summed up under the heads:

(*a*) Maladaptation of the school system to the average healthy child.

(*b*) Irregular attendance, *i. e.*, truancy, late entrance, etc.

(*c*) Language difficulties.

As physicians we are not much concerned with these causes; their study and remedy lie in the hands of educators.

Causes both educational and medical reside in the school children themselves. These latter more closely concern us.

Retarded school children may belong to one of the following classes:

(*a*) Healthy children;

(*b*) Physically defective;

(*c*) Mentally defective.

(*a*) Some causes of retardation in healthy children are thus expressed by Ayres: "Late entrance is an important factor, irregular attendance is another. In both cases, time lost through illness plays an important part." The school courses seem to be based on the proposition that a child should enter school at six years of age and progress at the rate of a grade a year, finishing the eighth grade at fourteen. It is a conservative opinion that promotion is impossible for children who have been absent from school 25 per cent. of the

school days. In 1908 the Washington public schools were in session 177 days; the average child who was absent 44 days failed of promotion. The grades in which retardation is most prevalent are the first to the fifth, the corresponding ages being six to twelve, or the ages of greatest prevalence of the exanthemata and other diseases of childhood. Also, it is known that the schools are excellent media for the exchange of the contagia. A consideration of the following periods of exclusion from school required by the Health Office, in the light of the remarks just made, indicate clearly a very important cause of retardation in healthy children:

(1) Small pox, until free of evidence of disease, at least 4 weeks; those exposed, 19 to 21 days.

(2) Scarlet fever, until discharged by Health Officer—3 to 10 or more weeks; those exposed, 10 days or during residence in placarded house.

(3) Diphtheria, until discharged by Health Officer—10 days to 3 or more weeks; those exposed, 7 days or during residence in placarded house.

(4) Measles, 3 weeks; those exposed 5 weeks.

(5) Chicken pox, at least 2 weeks.

(6) Mumps, at least 3 weeks.

(7) Whooping cough, at least 5 weeks.

In addition, school children may be excluded for indefinite periods for pediculosis and other parasitic diseases, contagious diseases of the skin and eyes, etc.

(*b*) The second class of retarded children has been the subject of interest and public discussion for a number of years, viz: physically defective children. When retarded or laggard children are spoken of, it is likely the first thought of the majority of readers will be of children with defective vision, defective hearing, enlarged tonsils, defective teeth, anaemia and poor nutrition. These are defects upon which most investigations of the subject have been based. Ayres says upon this: "Certain physical defects are responsible for a part of the backwardness. On the basis of the investigation conducted in New York, we can say that in general children suffering from the physical defects recorded by the school physicians make nearly 9 per cent. slower progress than do children found without defects." Nine per cent. is an important figure, but it is clear that physical defects of this type constitute only a minor part of the difficulty. Indeed, investigations have shown that these common defects exist in considerable proportion among unretarded children; and defects of vision tend to increase as the grades ascend.

(*c*) Mentally defective children are naturally among the retarded class, and this pitiable condition constitutes a separate cause of the whole problem, though a very small one. The total number enrolled in the ungraded schools of this District in 1908

was 181, .34 per cent of the total enrollment. Those who are working among the feeble-minded estimate that about 1 in every 300 individuals will fall in the feeble-minded class. The number just given as segregated in the ungraded schools is a trifle in excess of this proportion, but incorrigibles are included in the figures as given in the Report of the Board of Education, and nothing appears to enable one to separate the two classes.

Remedies.—Of causes purely educational.—Educators must seek better adaptation between the school course and the average child, and they must keep the children in school. These are purely educational problems to be worked out by educators, with the aid of legislation.

Of causes educational and medical; causes resident in the child.

a. Normal children.

(1.) Educators must abandon the system which requires that all the children must be present all the time in order to succeed. A certain amount of illness is inevitable among a large number of children of school age under present conditions, and this must be provided for. On the other hand, physicians must keep in mind the effect of overage upon children's schooling: "the retarded pupil finds himself in the same class with much younger companions. His age and size are a continual reproach to him. He begins to resent the maternalistic atmosphere of the lower grades. He becomes discouraged through his lack of success and, when he has passed the compulsory attendance age, he leaves school." We have not been enough aware of the importance of completing the early grades on time; we have been accustomed to say: "Keep him out of school; it won't hurt him to lose a grade." It may, however, be the origin of failure throughout his school life.

(2.) Medical inspection from the standpoint of prevention of contagious diseases must be continued and made more efficient. The extremely important influence of illness from preventable diseases upon retardation need only be pointed out to show the importance of adequate medical inspection as a remedy for the evil. Much has been accomplished to this end by the system operating here now; but no system can be very effective which entrusts to one man the sanitary care of 15 to 18 widely separated school buildings housing from 5,000 to 6,000 children. It would seem that best results would be obtained by many inspectors, with small districts, small enough to enable each man to visit all his schools each day within the first hour or two.

(3) School nurses should be employed properly to follow up cases of minor contagious diseases, for the purpose of seeing to it that the directions of the inspectors are carried out, that treatment is faithfully persisted in, and that the children thus excluded are promptly returned to school. This is essential to the elimination of a cause of retardation of considerable importance.

(*b*) *Physically defective children.*—(1) Medical inspection should be extended so that physical examination of every child may be made and records of such examinations kept. The discovery of many of the minor defects, which, as has been pointed out, cause the afflicted children to be 9 per cent. slower than their fellows, is often purely accidental when medical inspection extends no further than for the prevention of contagious disease. Such examinations should be made to the end that curable defects may be cured; and that incurable handicaps may be recognized and children so affected placed in special schools adapted to their powers, in order that they may not retard others nor injure themselves.

(2) School nurses are here specially needed to follow up cases of minor defects; to explain to parents the recommendations of the medical inspectors and to coöperate with the parents in procuring the necessary remedial measures.

(*c*) *Mental defectives.*—Mentally defective children should, of course, be segregated in special schools. Provision has been made for this class to a limited extent, but such provision needs to be amplified. The detection and proper classification of this type of child should be conducted on a more exhaustive and accurate basis than is possible at this time. The burden of the medical opinion in these cases under our system rests upon the medical inspector; and his examination must be done hurriedly, without history or apparatus. Naturally, unless mental defect is very apparent, the child is given the benefit, or the injustice, of the doubt, and returned to the grade. Backward children should be tested with instruments of precision, and their mental age determined by the use of the Binet-Simon or other scale for this purpose. All such children showing arrest of mental development should promptly be removed from the graded schools and thus further diminish the retarding elements.

Conclusions.—Many conclusions may be derived from a consideration of the facts and theories herein advanced, but the following it seems desirable to enumerate:

1. The public schools here exhibit the same problems of retardation and elimination as do those of other cities.

2. The schools here are no better adapted to the average child with the average health history than are those in other cities.

3. Educators should modify the school course so as to allow for the factor of illness; physicians should endeavor to restore children to the schools as soon as possible so as to avoid elimination from age and grade disparity.

4. Special schools have been established here for the care of incorrigible and mentally defective children; other special ungraded schools ought to be established to care for normal children during temporary retardation, in order that they may be

restored to their grades, and for physically defective children so as to adapt the schooling to the capacity of each child. Such schools should perform the same relative function in the schools as the convalescent hospital is designed to subserve in the care of the sick.

5. The problems of retardation carry new things for the physician engaged in work among children to know.

6. Adequate medical inspection is essential to the reduction of retardation in healthy children and in physically defective ones.

7. Medical inspection as now provided is inadequate.

8. School nurses are indispensable for the best results of medical inspection.

9. Congress is not willing to give to this city what is everywhere recognized as an essential weapon against retardation of school children, having at the last session reduced the medical inspection service and having failed to provide for school nurses.

10. The Dillingham bill providing for the establishment and maintenance of a laboratory for the study of defectives in the District of Columbia should be enacted, both for its broad general purposes and also for the proper study and classification of defective school children.

11. Retardation is in part brought about by repeated failures to succeed and thus may be a causative factor in the neurasthenias and psychasthenias so frequent in American life. The problem should engage the attention of physicians for this reason; for

"We have seen that a large part of all the children in our public schools fail to make normal progress. They fail repeatedly. They are thoroughly trained in failure. The effect of such training should be carefully considered, for the problem it presents is a grave one. It does not make much difference what we have to do, whether it is a great thing or a little thing, so long as we feel that it is possible for us and that we can do it if we try. There are few more hopeless things in the world than to have it borne in upon us that we are driving against a thing that we cannot do. Yet this is the sort of training that we are giving a large part of all our children."

"Success is necessary to every human being. To live in an atmosphere of failure is tragedy to many. It is not a matter of intellectual attainment; not an intellectual matter at all, but a moral matter. The boys and girls coming out of school clear-headed and with good bodies, who are resolute, who are determined to do and sure that they can do, will do more for themselves and for the world than those who come out with far greater intellectual attainments, but who lack confidence, who have not established the habit of success but within whom the school has established the habit of failure."*

* All quotations from Ayres' "Laggards in our Schools."

Dr. Woodward was glad that the subject had been dealt with as the paper dealt with it. We are apt to take things for granted, because we do not see the problems; but those responsible for the training and well being of 55,000 to 60,000 school children must recognize the problems connected with this heavy charge and naturally feel the burden of responsibility.

He thought that at first glance one might be misled by the figures given in the paper; because retardation does not all depend upon the pupil; it may depend in large measure upon the speed of the curriculum. It is perfectly possible for the authorities to speed up the curriculum so that all the pupils may become retarded. The question is not so much that retardation exists as it is how much exists and what causes it. The whole trouble arises from the necessity of dealing with children in mass; the average proper pace may be impossible for some, and may be intolerably slow for others. Provision is made for caring for retarded pupils; why is none made for a more rapid advance of brighter pupils? The elimination of retardation depends largely upon the proper adaptation of the curriculum to the average child. A step has been taken in the direction of such adaptation by the segregation of abnormal children in special, atypical schools. He wished fully to endorse the remarks upon the medical inspection of schools. He thought that the importance of school nurses had been properly emphasized. The most that the medical inspector can do is to get children out of school; the function of the nurse is to get excluded children back into school as soon as possible, by instructing the parents and thus aiding in a speedy cure of the ailments causing exclusion. Another function of the nurse is to see that pupils who are found to be defective in any remediable way are given the proper treatment at home. This phase of the problem lies more directly before the medical men for solution.

Dr. Lochboehler said that reference had been made in the paper to the importance of medical inspection, but not enough stress had been laid upon the influence of adenoids and diseased tonsils in causing retardation. These physical defects have been shown to have a very important bearing upon this matter.

Dr. Heitmuller pointed out that sex is to some extent a factor in grade distribution. In the first four grades, boys outnumber the girls; this disparity decreases from grade to grade until in the upper grades the girls outnumber the boys, in ever increasing numbers, until in the last year in the High School, there are 55 per cent. more girls than boys. This has been regarded as an indication that the present school system in the upper grades is not adapted to boys, and unless changed will result eventually in subordinating the male industrially and politically.

Dr. Chappell believed that retardation depends about as

much upon the teachers as upon the children. It did not seem to him that retardation is such a serious matter as at first sight it might appear to be. For a child to miss promotion once in seven or eight years is not so bad; after all, it's a health matter, and the child who in retaining health becomes retarded, may be a better all-round child than the one who finishes the grades on time. As to the medical inspection of schools, as chairman of the Public Health Committee, he had advocated the appropriation of $50,000 annually for this purpose and the appointment of 100 inspectors; he had warned the Society not to compromise on such a ridiculously small basis as was finally adopted. Those were prophetic words; for the service has been kept down to its original level notwithstanding the increase of the city and the school system, and now finally has been reduced. On the present basis, he could not believe that the inspectors can by their activities reduce the prevalence of the minor contagious diseases; but after all the important thing is the care of the physical make-up of the individual child; and this care can be given only with enough inspectors.

Dr. E. L. Morgan said that there was one point he wished to emphasize, and that is the disgraceful way in which the medical profession will rest content with anything, however small, that the authorities choose to hand out; if the profession wishes to obtain anything worth while it must learn that it will have to fight like a labor union. It is distressing to think of what physicians in the public service in this city get in the way of pay. We have made ourselves cheap and the public will take us at our own estimate.

Dr. S. S. Adams said that it seemed to him safe to start out with the fundamental proposition that the public schools here are as good as anywhere else. That defects exist, and will always exist, must be taken for granted. What defects there are, however, are not all properly chargeable to the schools nor to the teachers; he believed that the great majority of the teachers are quite able to take care of their work, but their best efforts will fail without proper co-operation of the parents of the children in their charge. School children may be divided into three classes: (1) The well-to-do; (2) the comfortably circumstanced; (3) the poor; each of these classes has its own particular environment, and this environment has much to do with the school work of the children. How many children with good homes and in the care of the average practitioner go to school with an adequate breakfast? The public schools here are better patronized by all classes of society than anywhere else in the country; and the children who go to school without a proper breakfast are not only the poor children, but those from well-to-do families who have their breakfast without proper supervision; the parents are not on

hand to see that the children eat enough or that they eat the proper kind of food. Children who thus hastily take what the servants happen to set before them and then rush off to school, cannot possibly do their school work properly; and such instances abound. In the second class, those in comfortable circumstances, the same conditions obtain but to less extent; it is in this class that the children get the most and the best parental oversight, but still not enough. In the poor class, the children naturally get for breakfast only what they can have from the total scant supply.

While health is a *sine qua non* for the useful citizen, yet it cannot correctly be said that health is better than no education at all. On the other hand, some children may be kept in better health by the correctional effects of school discipline than if they are left to the unregulated idleness that follows withdrawal from school.

The medical inspectors of schools, in his opinion, are doing a great work, in spite of the limitations under which they are laboring; if no other good were accomplished by them, when it can be pointed out that 15,000 lousy children have been excluded by the inspectors in one year this fact will justify medical inspection; but of course other and more serious conditions are corrected in the same way.

Dr. Macatee said in closing that the remark that retardation is not in itself a serious thing is one frequently made and would be justified if the loss of a year were followed by the simple result that children so retarded instead of finishing the eighth grade at fourteen finish it at fifteen; but the effect of retardation upon elimination is the important evil. The statistics show that if children are retarded one year, they are apt to be retarded another, and that if they reach fourteen years of age in the fifth or sixth grade they are apt at this age (compulsory attendance no longer being in effect) to drop out of school with only sixth grade education; and this is not enough. It is perfectly true that the curriculum may be speeded up so that it is impossible for any child; and it seems probable that it has been so speeded that it is possible only for children somewhat above the average; it is on this basis that educators must reform the curriculum. The problem of the bright children who are held back by the average children is not at all acute; for there are about ten children retarded for every one ahead of his grade. The true problem is to find the true average; and it seems that this average is somewhat below that for which the schools are at present adapted; for the physician the problem involves the best means of restoring to the true average that large number of children who by reason of physical defect fall below it. For this purpose medical inspection is indispensable.

PROCEEDINGS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Wednesday, March 1, 1911.—The President, Dr. W. M. Barton, presided ; about 45 members present.

Dr. F. R. Hagner, as a matter of personal privilege, wished to state to the Society that an article in the *Washington Herald*, of recent date, which purported to be a report of Dr. Hagner's paper, read February 22, had appeared without his knowledge or consent, and that he had been ignorant of the fact that the newspaper knew that such a paper was to be read. The explanation was accepted.

The Society extended to Dr. Franzoni, who was ill, a vote of sympathy, with the earnest hope that he would soon recover from his illness.

Dr. H. H. Hazen read a paper on the Skin Lesions in the Leukemias. Discussed by Drs. J. D. Morgan and Hazen. See p. 121.

Dr. Oscar Wilkinson read a Review of Otology. Discussed by Drs. Polkinhorn, Williams and Wilkinson. See p. 115.

Wednesday, March 8.—The President, Dr. Barton, presided ; about 100 members present.

Drs. W. B. Grove, U. S. A., and A. R. McLean, U. S. N., were elected members by invitation.

Dr. G. Wythe Cook informed the Society that the bill to amend the charter of the Society had failed of passage by Congress on account of the pressure of business at the close of the session ; the bill had passed the Senate, and there was good reason to believe that it might pass in the House at the approaching extra session. Dr. C. W. Richardson had been in charge of the matter in the interest of the Society, having begun the work in his capacity as Chairman of the Executive Committee ; as Dr. Richardson is no longer a member of the Executive Committee Dr. Cook moved that he (Dr. Richardson) be appointed a committee of one to forward action upon the bill, with authority to accept such amendments as may be necessary to make the charter acceptable to members of Congress, adhering as nearly as possible to the wording as originally proposed. Carried.

The scientific work of the evening consisted of the reading of papers by members of the staff of the Government Hospital for the Insane, who were present by invitation. Dr. N. J. Dynan, "Case of Hemiplegia and Aphasia, with Demonstration of Brain ;" Capt. L. L. Smith, U. S. A., "Dementia Precox and Chronic Alcoholism ;" Miss G. H. Kent, "Training in Cases of Dementia Precox ;" Dr. F. M. Barnes, "Pupillary Anomalies in Acute and Chronic Alcoholism." Discussed by Drs. Wm. A. White, Isabel Haslup Lamb and Franz.

On motion of Dr. G. Wythe Cook the thanks of the Society were given to the members of the staff of the Government Hospital for the Insane for their valuable and instructive papers.

Wednesday, March 15.—The President, Dr. Barton, presided; about 80 members present.

On motion of Dr. A. F. A. King, the following resolution was adopted: "That the following inquiry be referred to the Executive Committee of the Society, with a request to report at an early date, viz: 'Is it, or is it not, ethical and desirable that our publication, THE WASHINGTON MEDICAL ANNALS, be sent to one or more or all of the daily papers of this city.'"

The following resolutions, proposed by Dr. Thomas C. Smith, were adopted:

"WHEREAS, Dr. M. B. Strickler has completed his half-century as a Doctor of Medicine; therefore,

"*Resolved*, That the Medical Society extends its congratulations and good wishes to Dr. Strickler, and hopes that many years of health, happiness and prosperity may be his to enjoy.

"*Resolved*, That this expression of good will be placed on record, and a copy forwarded to Dr. Strickler."

Dr. Edward E. Mayer, of Pittsburg, Pa., opened a Symposium on The Scope and Usefulness of Proper Psychotherapy in General and Special Practice by reading a paper on Psychotherapy. See p. 123. Dr. Tom A. Williams contributed a paper on the Need of Neurological Training in Practicing Psychotherapy. See p. 131. Dr. Wm. A. White spoke extemporaneously upon Certain Introductory Fundamentals. Discussed by Drs. Hickling and T. A. Williams. See p. 135.

A rising vote of thanks was given to Dr. Mayer and the other gentlemen who participated in the symposium.

Wednesday, March 22.—The President, Dr. Barton, presided; about 70 members present.

On motion of Dr. T. C. Smith the following resolution was adopted:

"Henry Alfred Robbins, a member of the Medical Society of the District of Columbia, received the degree of Doctor of Medicine from the University of Pennsylvania in 1861, since which time he has on all occasions upheld the honor and dignity of the Medical Profession, and by his upright and gentlemanly conduct gained the approval and good will of his professional brethren and the general public. Now that he has attained his half century as a medical practitioner the Society desires to express to him its hearty congratulations and good wishes, and directs the Corresponding Secretary to send a copy of this testimonial to Dr. Robbins. It is also directed that this action of the Society be placed on record."

Col. L. A. LaGarde, U. S. Army, read the paper for the evening; title, "Infection of Gunshot Wounds."

Dr. Raymond Spear, U. S. Navy, exhibited two patients and radiographs. (1) Gunshot wound at elbow. The patient, a marine, was accidentally shot by a rifle which he was cleaning; the load entered his arm just above the elbow, muscle and bone being blown away. First-aid treatment was given: two coats of half-strength tincture of iodine and sterile dressings. Resection was later performed, and six weeks after the injury a movable joint had resulted. (2) Gunshot wound of upper arm. The man was shot at six yards with a Mauser bullet; the upper third of the humerus was shattered. The fragments were molded into place and held by splints. The result was satisfactory. There was no infection in either case.

Dr. John S. Neate said that it is assumed that a wounded soldier will have with him only a first-aid packet and a canteen of water; he may lie for twenty-four or thirty-six hours without surgical attention. In a first-aid packet it is not practicable to carry an alcoholic solution of iodine for disinfection of the wound, but experiment has shown that it is practicable to saturate dry gauze with potassium iodide and crystalline iodine, and the gauze inclosed in a small capsule; this gauze, when wet with water from the soldier's canteen, will be saturated with iodine liberated by contact with the water. Such gauze is found to be effective against the staphylococcus and other common organisms of suppuration.

Dr. Kober said it was a satisfaction to him to hear iodine spoken of with such praise as a local antiseptic. In 1876 he had injected tincture of iodine into a gunshot wound of the knee, with subsequent recovery of the patient. The case was published in the *Amer. Jour. of Med. Sciences*, and was perhaps the earliest case of the kind in the literature.

Dr. Kinyoun said that Col. LaGarde had stated that in future warfare military surgeons would encounter much tetanus, and with the newly adopted bullet still more. When Calmette first published his method of using dried antitetanic serum as a prophylactic against tetanus he had tried the method on many mill operatives, who came for treatment for contused and lacerated wounds; as a routine measure he dusted these wounds over with the dried antitetanic serum. After six months' experience he found that the cases never required more than the one dressing; it was the rule that all wounds treated in this way healed by first intention. In view of the fact that tetanus must be reckoned with in the future, Dr. Kinyoun suggested that this might be tried as well as the iodine as a first-aid measure. He believed that the good results must have been due to some common immune body in the antitetanic serum.

Col. LaGarde had little to add. As to the use of antitetanic serum it had been used very effectively by the New York Board of Health as a skin disinfectant in Fourth of July wounds; it was issued in a packet for the treatment of toy-pistol wounds. It is hard to tell what wounds will develop tetanus and what will not; all wounds received in the street or near stables should be regarded with suspicion, and the antitetanic serum used; he would also use the serum in most lacerated and hematomatous wounds.

A discussion of the proposition to secure a permanent home for the Society being in order, the Chair commented favorably upon the movement and expressed the hope that every member of the Society would participate in it.

Dr. C. W. Richardson spoke of the long and honorable history of the Society and of the contrasting homelessness of it, of the necessity of going about like a mendicant seeking shelter, of the difficulties in the way of doing its best work under present conditions and of the desirability and necessity of owning and managing its own home. Drs. J. Dudley Morgan, S. S. Adams, Jos. Taber Johnson, I. S. Stone, J. Wesley Bovée and G. M. Kober also discussed the proposition.

Dr. A. F. A. King said that he and Dr. Richardson had simultaneously undertaken to investigate the possibilities of raising enough money to buy a home for the Society; he had quietly gone to a number of men in the Society with the idea of securing subscriptions to the amount of $10,000 for this purpose before coming before the Society with the proposition. He had been able to secure promises for nearly this amount, the subscriptions being made by eighteen members of the Society, as follows: Five subscriptions of $1,000 each, $5,000; five of $500 each, $2,500; one of $200; three of $250 each, $750, and four of $100 each, $400; total, $8,850. One member offered $1,000, conditional on disposing of some real estate, and another is willing, if necessary, to make his subscription $2,000 instead of $1,000; thus it may be said that $10,000 has been promised.

Dr. King's proposition was that the other members of the Society contribute the sum of $15,000, making a total of $25,000, and invest this sum in a property suitable for the uses of the Society.

Dr. C. W. Richardson moved that the Society look with favor upon the proposition made by Dr. King and that the president be directed to appoint a committee of ten members to consider ways and means to carry the proposition into effect. Carried.

Dr. A. F. A. King thanked the Society for its action in recognizing his fiftieth anniversary of graduation by authorizing the giving of a banquet in his honor; he wished this expression of his appreciation to go on record.

Wednesday, March 29.—The President, Dr. Barton; presided ; about 70 members present.

The Corresponding Secretary was authorized (1) to invite Dr. Wilfred Grenfell to address the Society at a special meeting to be held April 10th or 11th ; (2) to invite Dr. Gaylord, of Buffalo, to address the Society at some future date ; (3) to arrange for a joint meeting of the Medical Society and the Anthropological Society, Drs. Lamb and Hrdlicka having promised papers and the exhibition of specimens of Diseases and Injuries in prehistoric man.

An appropriation of $85.92 was granted for the publication and mailing of the March ANNALS.

Dr. Heitmuller, on a question of personal privilege, said :

"Mr. President, the account of the proceedings of the meetings of January 2 and 11, in the March number of the ANNALS does not agree in several particulars with the statement of the question of personal privilege which I read on January 11.

"It substitutes the word 'derogatory' for the word 'scurrilous,' which was used in both the charge and in my statement.

"It conveys the false impression that I had circularized the members of the Society with an anonymous paper.

"In my statement of January 11, I said : 'As I was instrumental in circulating three copies of a transcript of extracts of the testimony given by one of the nominees, under oath, in a court of law, in favor of a nostrum called 'Curforheadache' 'Branefude,' it is at least possible that this charge is based on that action.' Thus, clearly showing that the members of the Society were not circularized, and as the author of the testimony is clearly indicated, the three copies that were sent out were not anonymous.

"Mr. President, in order to remove this false impression from the minds of the readers of the ANNALS, I request that the statement which I read at the January 11 meeting, be printed in full in the next number of the ANNALS."

Copy of statement of January 11 :

"At the last stated meeting of the Medical Society a member asked for an investigation concerning the origin of what he termed a 'scurrilous circular' about one of the nominees for the presidency of the Society.

"As I was instrumental in circulating three copies of a transcript of extracts of the testimony given by one of the nominees, under oath, in a court of law, in favor of a nostrum called 'Curforheadache Branefude,' it is at least possible that this charge is based on that action.

"In order that the members of the Society may know just what information the circular which I sent out contained, I send a copy to the table and request that it be read by the Secretary, and referred to the Board of Censors.

"Mr. President, I not only court a full and searching investigation of the above charge, but I demand it."

The Recording Secretary stated that the report of the matter, as it appeared in the ANNALS, followed the minutes as recorded by him; he had not received any written statement at the time and thus the error complained of had occurred. The chair directed that Dr. Heitmuller's request be granted.

Dr. H. H. Kerr reported a case of Acute Pancreatitis; operation and recovery. Discussed by Drs. W. P. Carr, A. F. A. King, Sprigg, Balloch, G. Brown Miller, Nichols and Kerr. See p. 137.

Dr. W. M. Sprigg reported a case of Acute Appendicitis.

The patient was a woman; age, 54, who became ill March 28. He saw her in the afternoon; there had been pain in the abdomen with vomiting all the morning; temperature, 100.4; leucocyte count, 26,000; tentative diagnosis, appendicitis. March 29, at 12.30, the temperature was 99.2; pulse, 90; localized tenderness below McBurney's point; leucocytes, 15,000. Operation was advised, and on account of the ameliorated symptoms reluctantly consented to. The appendix was found partly gangrenous; was easily enucleated and the operation completed without incident. The points of interest were: A serious intra-abdominal condition, with a falling pulse and leucocyte count. The opportunities to go astray in advice were very abundant.

Dr. Kerr asked if the case had been drained?

Dr. Sprigg replied that a cigarette drain had been left in as matter of precaution.

Dr. D. K. Shute read the essay for the evening: The Influence of Pregnancy upon Diseases of the Eye. Discussed by Drs. Butler, S. B. Muncaster, O. Wilkinson, Heitmuller, Sprigg, Carr, A. F. A. King, Moran, Prentiss Willson and Shute. See p. 141.

Wednesday, April 5.—The President, Dr. Barton, presided; about 60 members present.

The following applicants for active membership were elected: Joseph B. Bogan, George Washington University, 1907; Henry H. Hazen, Johns Hopkins University, 1906; R. S. Ingersoll, University of Michigan, 1898; Wm. J. Manning, National University, 1903; S. Boyce Pole, George Washington University, 1909; T. A. Poole, University of Baltimore, 1898; J. O. Skinner, University of Maryland, 1866, and University of Pennsylvania, 1867; Robert Y. Sullivan, Georgetown University, 1905; Charles Lyman Watson, George Washington University, 1907, and J. A. Watson, Georgetown University, 1890.

The following committee was appointed to take in charge the matter of securing a permanent home for the Society, as provided by resolution adopted March 22, 1911: Charles W. Richardson,

Chairman, A. F. A. King, W. M. Barton, Philip S. Roy, Louis Mackall, J. Dudley Morgan, H. T. A. Lemon, Dwight G. Smith, S. S. Adams and N. P. Barnes.

A letter from the Chamber of Commerce, Committee on Conventions, requested the appointment of seven additional members to the Committee on the George Washington Memorial. The Society deemed it inexpedient to enlarge the committee or to continue the canvass for the George Washington Memorial.

Dr. Mundell reported three cases of "Placenta Previa." Discussed by Drs. Moran and H. D. Fry. See p. 144.

Dr. Sprigg reported a case of Abortion, and exhibited a specimen of *Complete Ovum in the Intact Decidua*. The specimen was discharged, April 3, by a woman 36 years old. In September, 1910, she was delivered of a fetus at term; at time of delivery he found two fibromata uteri, and after delivery a third was made out, one at the fundus, anterior surface, and one at the side of the fundus, both being the size of a split orange; the third was on the left side of the uterus at the level of the internal os. The patient failed to menstruate in February, 1911; she was therefore about five weeks pregnant when, after considerable active housework, she had pains and passed the specimen exhibited. When examined on this occasion it would have been impossible to make out the fibromata had he not been aware of their presence, they had undergone such involution. The fresh specimen was an entire cast of the uterus, unopened; as shown, it presented an opening made to show the ovum within. At the point corresponding to the fibroid at the level of the internal os, there was evidence of a recent hemorrhage. Was that hemorrhage the cause of the abortion?

Dr. Hickling read the paper for the evening: "Work of the Psychopathic Wards of the Washington Asylum Hospital." Discussed by Drs. Williams, J. D. Morgan, Kober and Hickling.

THE NURSE'S OPINION.

A nurse had been called as a witness to prove the correctness of the bill of a physician.

"Let us get at the facts in the case," said the lawyer, who was doing a cross-examining stunt. "Didn't the doctor make several visits after the patient was out of danger?"

"No, sir," answered the nurse. "I considered the patient in danger as long as the doctor continued his visits."—*Chicago News.*

WASHINGTON MEDICAL ANNALS.

Journal of the Medical Society of the District of Columbia.

Published Bimonthly by the Society, at No. 2114 Eighteenth Street, N. W., Washington, D. C. Subscription price, including postage, $1.00 per year, in advance. Single copies, 20 cents. Advertising rates given on application.

EDITORIAL COMMITTEE.

D. S. LAMB, A. M., M. D., *Chairman*, . 2114 Eighteenth Street, N. W.
BENJ. G. POOL, M. D., . . . 945 Rhode Island Avenue, N. W.
PRENTISS WILLSON, M. D., ... The Toronto.

Editorial.

MEDICAL HISTORY CLUB OF WASHINGTON, D. C.—Progam for 1910–11. *Officers:* President, Dr. James Dudley Morgan, Vice President, Dr. G. Wythe Cook; Secretary and Treasurer, Dr. Truman Abbe; Corresponding Secretary, Dr. Huron V. Lawson; Executive Committee, Drs. D. K. Shute, P. S. Roy, I. S. Stone and the Officers.

THE HIPPOCRATES SOCIETY, the object of which is "the cultivation and promotion of knowledge in whatever relates to the science of medicine and surgery," holds meetings on the second and fourth Thursdays of each month from October to May. The membership in this Society is limited to 25. The officers for the present season are: President, Dr. Charles S. White; Vice President, Dr. Thomas S. D. Grasty; Secretary-Treasurer, Dr. Laurence M. Hynson.

SOCIETY OF OPHTHALMOLOGISTS AND OTOLOGISTS OF WASHINGTON.—President, Dr. W. H. Wilmer; Vice President, Dr. S. B. Muncaster; Secretary-Treasurer, Dr. R. S. Lamb. Meetings every third Friday in the month from October to May.

GALEN SOCIETY OF THE DISTRICT OF COLUMBIA.—President, H. W. Kearney, M. D.; Secretary-Treasurer, C. C. Ammerman, M. D. October 9. Business meeting; at Dr. Kearney's, 1221 O Street, N. W. November 13. Business and Case Reports.

The Secretaries of the other Medical Societies of this District are reminded that the ANNALS will publish in the September number the schedules of their meetings for the coming season.

THE SEVENTH INTERNATIONAL CONGRESS AGAINST TUBERCULOSIS will be held at Rome, Sept. 24 to 30, 1911, under the patronage of the King and Queen of Italy. Information in regard to the Congress can be obtained from the Secretary General, Via in Lucina 36, Rome, Italy.

History of the Medical Society of the District of Columbia. Price, $3.00, delivered in this city or sent by mail. Address Dr. C. W. Franzoni, Treasurer, 605 I Street, N. W.

The Mississippi Valley Medical Association will hold its 37th annual meeting at Nashville, Tenn., Oct. 17 to 19, 1911; H. E. Tully is the secretary. Dr. Frank Hagner is on the program for a paper on "Operative Treatment of Gonorrheal Epididymitis."

The American Laryngeal Association, at its 33d annual meeting in Philadelphia, May 29–31, elected Dr. J. H. Bryan, Librarian.

The American Gynecological Society, at its annual meeting at Atlanta, Ga., May 23–25, elected Dr. J. W. Bovèe Treasurer.

At the 12th annual meeting of the American Therapeutic Society, held at Boston, May 13, Dr. N. P. Barnes was elected Secretary.

Dr. Alexander Miller Stout, who joined this Society Nov. 2, 1886, and soon after removed to Chicago, died May 20, 1911, from cerebral hemorrhage, at the Chicago City Hospital for Contagious Diseases, of which he was the Superintendent.

The Proceedings of the Medical and Surgical Society of this city were published in the *Virginia Med. Semi-Monthly* of May 26.

Dr. L. O. Howard, Chief of Bureau of Entomology, Department of Agriculture, has received the honorary degree of M.D. for "distinguished services to science in relation to preventive medicine," from the George Washington University.

A New Journal is announced for this city, the *Journal of the Washington Academy of Sciences*, to be edited by Messrs. G. K. Burgess, B. W. Evermann and F. L. Ransome; a semi-monthly; the first number will appear about July 15. It will take the place of the present Proceedings of the Washington Academy of Sciences. For further information address the editors, or Dr. A. L. Day, Treasurer, at the Geophysical Laboratory.

Dr. I. W. Blackburn, the Pathologist of the Government Hospital for the Insane for many years, and a member by invitation of this Society, died at the hospital June 20. Dr. Blackburn contributed many papers to this Society, all of which were illustrated by specimens from the hospital. He stood high as a pathologist, especially of the brain; and personally was very earnest and friendly, approachable and accommodating. He will be missed very much, both at the hospital and by this Society.

Dr. H. H. Hazen has an article on Epithelioma of the upper lip in a pure negro in the *Jour. Cutan. Dis.*, for June, abstracted in the *Jour. A. M. A.*, of June 17, page 1857. Dr. Dunlop has

a paper on Lesions of the Sacro-Iliac Joint, in the *Virginia Medical Semi-Monthly*, of May 26. Dr. Fielding H. Garrison, of the Library of the Surgeon General's Office, and one of the editors of the *Index Medicus*, has a very interesting paper on the Historical Collection of Medical Classics in the Library of the S. G. O., in the *Jour. A. M. A.*, of June 17, page 1785. Dr. G. T. Vaughan has a paper on the Surgical Aspects of Typhoid Fever, in *Virginia Med. Semi-Monthly*, of June 5, page 111. Dr. C. B. Conklin, of Washington, an article on Venesection, its uses and abuses; same Journal, page 115. Dr. T. A. Williams, on Clinical Diagnosis of Early Tabes Dorsalis, with negative Wasserman reaction; same Journal, for April. Dr. W. Gerry Morgan, on Experience with the Einhorn Duodenal Bucket, and a modified thread test; *Amer. Jour. Med. Sci.*, for May. Dr. S. B. Muncaster; Operation for Pedunculated Exostises of the External Auditory Meatus; *Jour. A. M. A.*, May 27, page 1555. Dr. J. F. Moran; Fibroids of the Uterus, complicating Pregnancy and the Puerperium; *Amer. Jour. Obstetrics and Dis. Women*, for May. Dr. T. A. Williams; The Need of Neurological Training Psychotherapeutic Practice; *Monthly Cyclop. and Med. Bull.*, May, page 275. Dr. D. K. Shute: The influence of pregnancy on diseases of the eye; *N. Y. Med. Jour.*, June 3; abstracted in *Jour. A. M. A.*, June 24, page 1904.

Books and Pamphlets Received.

C. A. Pfender; Medico-zoological nomenclature; the correct name of the protozoan of syphilis. Reprint.

S. H. Blodgett; Glycosuria. Reprint.

G. W. Wende; Pellagra in Buffalo. Reprint.

E. H. Martin; The arsenates in the treatment of syphilis and pellagra. Reprint.

W. C. Gorgas; Report of the Department of Sanitation of the Isthmian Canal Commission, for April, 1911.

John Zahorsky; Golden rules of pediatrics. Published by C. V. Mosby Co., St. Louis, Mo., 1911; price, $2.50.

Annual announcement Department of Medicine, Leland Stanford University, California, June, 1911.

Twenty-fourth annual session Lone Star State Medical, Dental and Pharmaceutic Association, for 1910.

T. A. Williams; A simple clinical method for measuring the diameter of the pupil. Also: Nervous symptoms of arteriosclerosis and their removal by diet. Also: The clinical diagnosis of early tabes dorsalis with negative Wasserman reaction. Also: Physiological measures in the therapeutics of nervous diseases. Also: Subconsciousness. Reprints.

M. G. Motter and M. J. Wilbert; Digest of comments on the

Pharmacopoeia of the United States of America, etc., for the calendar year 1908, Hygienic Laboratory, Bulletin 75, April, 1911.

Trans. Amer. Pediatric Society, 22d session, 1910.

L. Tayler-Jones; A record of the first 500 cases cared for at the Nathan Straus Infants' Milk Depot, of Washington, D. C. Reprint.

E. H. Egbert; Fads and follies of 20th-century medical practice. Reprint.

Bulletin of State Board of Health of Kentucky, April, 1911.

New York Post-Graduate Medical School and Hospital, 30th Annual Announcement, 1911–12.

Vol. X. SEPTEMBER, 1911. No. 4.

WASHINGTON MEDICAL ANNALS

IODINE AS AN ANTISEPTIC, WITH SPECIAL REFERENCE TO STERILIZATION OF THE SKIN.*

By I. S. Stone, M. D.,

Washington, D. C.

Iodine was discovered by a Parisian soda manufacturer named Courtouis in 1811. In 1813 it was declared a distinct element by Desormes and Clement, and they communicated their discovery to the French Institute at that time. Iodine was first used in surgery for the treatment of dropsies and serous collections generally. From 1845 to 1868 it was the sheet anchor in all cases of joint effusions, spina bifida and strumous conditions which left open or suppurating sinuses. Its use in erysipelas was announced by Davis, of England, and it rapidly grew in popularity until it displaced nearly every other form of treatment for this disease. Senn says that Liebig first discovered its antiseptic power. Iodine was undoubtedly the most potent and efficacious remedy for the conditions for which it was used and gave the best results in the treatment of the infectious diseases such as erysipelas, but its marvelous results were obtained by its empirical use alone, for no one dreamed of its anti-microbic action until after bacteriological experimentation proved its claim to precedence as an antiseptic. Thus, we see that many of those who used iodine for acute infectious conditions did not know that microbes of various kinds actually existed and had a definite life history.

Our colleague, Dr. Kober, while yet a young army surgeon, saved a leg of a soldier who had sustained a gunshot wound of the knee joint, a form of injury which previous to that time nearly always demanded amputation, by using a mixture of iodine, carbolic acid and glycerine. Among the first to announce his experience with iodine as a germicide for use in the surgical sterilization of the skin we find the name of Dr. J. E. Cannady, of Paint Creek, W. Va., who contributed his views to the *Journal A. M. A.* for April 24, 1906. Heusner at this time was using a

* Read before the Medical Society, April 12, 1911.

mixture of iodine, benzine and paraffin, with cotton gloves, but he was not so fortunate as to attract the attention of the surgical world to the potency of iodine as an antiseptic. In October, 1908, Grossich, of Fiume, Austria, published an account of his experience with iodine as an antiseptic in the sterilization of wounds received in mines or factories, as crushed fingers and hands, where the worst possible conditions prevailed, such as formerly were productive of many infections requiring prolonged treatment in hospitals and a large proportion of amputations of injured members. Grossich found that wonderfully good results could be obtained by simply making an application of the tincture of iodine, without previous washing or cleansing with soap and water, as had formerly been the rule. This was a startling innovation, and it seemed to attract almost universal attention. Many surgeons promptly tried the method with favorable inclination because they had long felt a need for an improved technique; others condemned it and sought to decry its utility, but with little effect, as the literature of the subject shows. In 1910 over fifty articles appeared in the journals giving favorable accounts of the new method. Our attention was called to the matter by a short synopsis of Grossich's paper, which appeared in the *Journal A. M. A.* soon after its publication in the *Zeits. f. Chir.* in October, 1908.

We were much impressed by the claims made by the author, and at once began using the method, at first tentatively, and a little later we unhesitatingly relied upon it for all skin sterilization. Our early experience was reported to the So. Surg. and Gyn. Assn., at Hot Springs, in 1909. Since that time we have had a perfectly uniform and satisfactory series of results in our surgical work so far as wound healing is concerned. At first it was thought necessary to use the tincture in full strength, but we soon resorted to half strength, and for some months we have used only a 25 per cent. solution. Our intention has been to test the matter long enough to definitely ascertain if we could rely upon the weaker solution, in order not to endanger the skin of patients who are very sensitive to iodine, and also for economic reasons. Having been informed by Dr. Kinyoun that a 25 per cent. solution was reliable for the purpose, we are using it with apparently excellent results. Our emergency cases are treated with the iodine application just before making the incision, and without washing with soap and water, as was formerly done. If the patient's skin seems to need a bath or scrubbing we use alcohol or ether for that purpose.

Our patients awaiting operation are given a bath on the day previous to operation, but under no circumstances do we have the bath given just before the iodine is applied. Grossich has convinced many of us that the benefit of the bath has been overstated, and that the soap and epithelium, with other foreign mat-

ter, is forced or rubbed into the skin with the result that the various openings or spaces are closed to the entrance of the antiseptic.

Summary of benefit to patient from the new method.—The iodine is applied to the skin upon and around the operating field while the patient is taking the anesthetic, and at least five minutes elapse after the tincture is applied before the incision is made. An exception has been made to this in certain cases, such as uterine prolapse. In these, owing to the great difficulty in securing an aseptic field, we have the work of sterilization commenced on the day previous to operation, and repeat the iodine application just before beginning the operation.

By using the iodine method we are able to keep our patients perfectly dry during the operation, whereas we formerly thought it absolutely necessary to have the operation of scrubbing and sterilization done with the patient under anesthesia, thus insuring a wet skin.

We can make an additional incision during the time the patient is asleep by simply painting the part with the tincture without endangering the wound already made, or the viscera, if exposed.

Finally, we have reason to believe that the line of union is narrower after this method of sterilization has been used. (Shanz.)

Thus far we are having vastly better results in wound healing than before. Many surgeons reported their results under the former (bichloride) method, as showing from 20 to 40 per cent. of culture growths when they tested their work bacteriologically, while after they used iodine they secured an almost germ-free operative result.

Dr. W. P. Carr had had much experience with the use of iodine as an antiseptic in the treatment of wounds and old infected lesions; not so much with it as an agent for sterilizing the skin. He could say that it is entirely harmless even when applied to very extensive wounds, as in compound fractures, in which he had used the official tincture for several years. This was first recommended by Ochsner, of Chicago, about four years ago. Dr. Carr had used it for many years before that as an intrauterine application and in the treatment of old suppurating wounds, and often with very good results. It is valuable for the disinfection of the skin for emergency operations, even if not available for routine purposes. He had used it in one case on the skin and had later put on a cast; much itching and burning followed, but no other bad effects. We know that the good effects of iodoform and of bismuth formic-iodid are due to the iodine which they liberate. Recently Parke, Davis & Co. have put out a disc composed of mercuric iodid, which may be used instead of bichloride of mercury.

Dr. Jack said that the use of iodine as a skin disinfectant has greatly simplified surgical technique. We have none of the sloppy methods of other days, and the same ends are accomplished much more cheaply. The filthiest wounds may be cleaned up with gasoline, painted over with tincture iodine and wrapped up in dry gauze, and the surgeon can wait the outcome with an easy mind. The secret of the successful use of iodine on the skin is to keep the skin dry ; wet dressings must not be used.

Dr. Fry said that some sixty-three years ago it was pointed out that puerperal fever was due to the infection of a puerperal wound ; the idea lay dormant until Lister gave out his discovery, and surgery got the credit for an obstetrical observation. For twenty-five years tincture of iodine and carbolic acid have been used for the treatment of puerperal ulcers ; thus, history seems to be repeating itself, and surgery seeks to claim the credit for discovering the antiseptic value of iodine. Dr. Fry now uses iodine in a routine way for the sterilization of the skin about the vulva in obstetric practice ; and he uses it exclusively in preparation of the skin for operation. He had had recently the unfortunate experience of having the nurse apply equal parts of tincture iodine and carbolic acid by mistake ; but the results, of course, have no bearing on the value of the tincture of iodine used alone.

Dr. Ramsburgh said, as a warning to those who use the official tincture in all cases, that there are some individuals who cannot stand it. He had had personal experience with it which had left no pleasant recollections, and other cases had occurred in his practice.

Dr. A. Barnes Hooe was sorry not to have heard the entire paper. He had been using iodine as a local disinfectant for the past twelve months ; he had first employed the official tincture, and had met with but one case in which a few blisters resulted ; but seeing the results in the hands of others, he now employs the tincture in half strength. There may be some persons with idiosyncracy against iodine, but in most of the cases which react abnormally this is due to the use of the tincture concentrated by evaporation of the alcohol. He had not found it necessary to make two applications of the iodine ; the skin is simply painted over a few hours before the operation, and the patient comes to the table perfectly dry. He had tested the urine after very extensive applications of the drug and had found no reaction for iodine.

Dr. Neale had been fortunate in being a resident at Columbia Hospital when Dr. Stone first began the use of iodine for the disinfection of the skin ; the results were so much better than with the old scrubbing process that the difference could not fail to be noticed. On the maternity side at the hospital it was determined to use iodine in every case with any traumatism ; also,

in every case in which the temperature rose as high as 100 an intrauterine douche of tincture iodine, one or two drams to the pint of water, were given. In six months no case was transferred to the gynecologic side. Dr. Neale related a case of pure gonococcic infection of the endometrium successfully treated by the use of half strength tincture iodine as an intrauterine application. It had been found that the iodine readily penetrated the hair follicles, so that there is no necessity for shaving the parts in surgical procedures.

Dr. Randolph had been much interested in the paper and the discussion. He understood Dr. Stone to say that tincture of iodine has been used for the disinfection of the skin for a short time only. Twelve years ago at the Philadelphia Polyclinic there was in vogue a very elaborate technique for the preoperative sterilization of the skin, and for abdominal operations the technique included pouring into the navel a little tincture of iodine. This comes so near the present practice as given by Dr. Stone that Dr. Randolph thought it interesting to mention it.

Dr. Kober referred to a case of gunshot wound of the knee as long ago as 1875, in which he had used tincture of iodine as an injection; this was a pioneer case and had a successful issue. The treatment was suggested by the method employed by Barwell for the treatment of strumous joints, viz: the injection of tincture of iodine, half a dram, in seven and one-half ounces of water. Dr. Kober thought that if iodine were good in strumous joints it must be good for the treatment of a joint wounded by a bullet. His formula was: tincture of iodine, six drams; glycerine, two drams, and carbolic acid, fifteen drops. (Dr. Kober here read an extract from the report of the case, published in *Amer. Jour. Med. Sci.*, October, 1876.)

Dr. Hagner had enjoyed the discussion of this subject very much. There was doubt in his mind that the skin is actually sterilized by the tincture of iodine. Judging from the results of experiments made at Johns Hopkins with sections of skin after disinfection by various methods, it seemed to him likely that if sections of skin after the application of iodine are subjected to culture, the staphylococcus albus will be recovered.

Dr. Bovée said, with reference to what Dr. Hagner had just remarked, that sections of skin after iodine applications *have* been made and subjected to culture with the result that they have been found sterile. Dr. Bovée would say also that he had been disappointed with the method used in the Johns Hopkins experiments, viz: subjecting to culture strands of silk which had been passed through the skin; he had found that growth will not be obtained in some instances from the silk, while scrapings of the same skin will give growths. The principal point, as made by Grossich, is that the application of iodine must be on the dry skin; if the epithelium is swollen with water, the penetration of

the iodine will be impeded, and results will not be good. Dr. Bovée had tried the cultural reactions after the application of the iodine to hairy surfaces, with the result that it was found unnecessary to shave the skin, except to remove the hair as a mechanical obstruction. As to the use of iodine about the vulva and vagina, in his surgical work about these parts his practice is not to use a drop of water for twelve or fourteen hours before the operation nor at the operation; disinfection is accomplished with iodine. As a gonococcicide iodine is unexcelled; probably in 90 per cent. of the cases of acute gonorrhoeal vaginitis, two treatments with iodine, four days apart, should end the infection. Some patients may be somewhat irritated by the iodine, but in the majority it may be used fearlessly about the vagina and perineum. As to the strength of the solution of iodine to be employed, experiments show that anything less than 50 per cent. tincture of iodine will inhibit but will not kill cultures; the inhibition may last three or four days. The use of tincture of iodine will revolutionize, and has, indeed, already done so in some quarters the treatment of intestinal fistulas; with the disinfection of the tissue as we proceed, the fistula may now be dissected directly to its source and closed.

Dr. Battle said that a few years ago he had seen a street-car conductor who had painted the entire scrotum with tincture of iodine with the result that the tissues became greatly swollen and painful; the application of crushed ice was followed by immediate relief and rapid subsidence of the condition.

Dr. Lowe reported a case of iodine poisoning. A child was treated at the dispensary at Columbia Hospital for abscesses at the heel and in the supraclavicular region; the skin was painted with tincture of iodine, the abscesses incised and the cavities swabbed with the tincture. Later the child was brought back suffering with coryza and a mucous colitis and a papulo-pustular eruption on the face and back; Dr. Lowe regarded this as an instance of iodine poisoning by absorption.

Dr. Snyder had been reading some old medical papers which had belonged to his father and which bore the date 1857; there were reports among these papers of the use of tincture of iodine in surgery.

Col. La Garde said that hearing the various uses of iodine and the good results made him wish to report the following case: A lady had been troubled for years with a scalp affection in the form of small blisters, with much itching, and later the formation of little scabs; seeking refuge in a safe diagnosis, he had called it eczema of the scalp. She had for years kept the disease under control but never cured, with *herpicide*, at $1.00 a bottle. She heard of the use of iodine and wished it tried on her scalp. He consented to try it and did apply it with a camel-hair brush; this was most tedious and the lady found that she could apply it

very well with a medicine dropper; she is now entirely free of the disease.

With regard to the possibilities of the use of iodine in military surgery, he said that while the first-aid dressing has been of immense service, it has always been used with full cognizance of the fact that it is a clean dressing applied to a dirty skin; iodine will make it possible to apply a clean dressing to a clean skin. But a gunshot wound is an infected wound to begin with, and what we do to the skin will not affect the depths of the wound. Bergman, in the Russo-Turkish war, injected wounds with antiseptics with woful results. Experimenters have shot animals with infected bullets and have dressed some with clean dressings after washing the wound; others with clean dressings after carbolic injections; others with clean dressings alone, and others with clean dressings after swabbing the wound with tincture of iodine. The results were best after the use of clean dressings alone. It must, however, be remembered that the infection is dispersed into the tissues by the projectile to the distance of seventeen mm.

Dr. Spear said that at first at the Naval Hospital irritation followed the use of one-half strength tincture of iodine, but since then, after the tincture of iodine has been allowed to remain on the skin a few minutes and is removed by swabbing with alcohol, no more irritation has been observed.

Dr. Hagner warned the members not to use strong solutions of iodine in the urethra.

SUSPENSIONS OF SALVARSAN IN OIL.*

By H. H. Hazen, M. D.,

Washington, D. C.

Those of us who are accustomed to treat many cases of syphilis have long realized that calomel injections are by far the most efficient means of getting a patient speedily under the effects of mercury; but we have also realized how painful a procedure this frequently is. Therefore, when Lambkin described a painless method of administration it was hailed with joy. I have modified Lambkin's method and now use the following as a vehicle:

Monomethylcatechol dr. *ss*, camphor dr. *ss*, paraffin oil, q. s. oz. 1.

Paraffin oil is used because it will not become rancid and because it will draw up through a relatively fine needle. The camphor and monomethylcatechol are used to relieve pain.

* Read before the Medical Society, April 19, 1911.

When salvarsan first came on the market the technique appeared to me to be too difficult: then I read of the injections in oil. It at once occurred to me that if the above vehicle would render the intramuscular injection of calomel painless it would do the same with "606." My technique is extremely simple. I pour the salvarsan into a dry, cool and sterile mortar, and slowly add the oil, which has previously been sterilized, grinding steadily with the sterile pestle. If the mortar is not dry and cool, and if the syringe is not absolutely clean, the mixture may gum. It is probably not necessary to sterilize the oil each time, for my bacteriological experiments have shown that the mixture remains sterile. It is still questionable how much oil should be used. Following Kromayer and Levy-Bing and Lafay, I at first used a 10 per cent. suspension, going on the assumption that the salvarsan was the substance that caused the pain. More recently, however, Pollitzer seems to have demonstrated that it was the volume that caused the pain, and that a 40 per cent. suspension is accompanied or followed by very little pain. In the future I expect to use very much smaller quantities of oil. The majority of my patients have kept on with their work and have lost no time from work. As a rule some soreness and tenderness comes on about 36 hours after injection and lasts for six to ten days. The induration disappears in from one to two weeks.

It is, of course, entirely too early to say which is the best method of administering salvarsan and what the correct dose is. As regards the latter the tendency is to give larger and larger doses. As regards the former we may come around to the intravenous method or to the intramuscular or to a combination of the two. It is safe to say that the subcutaneous injections will not endure, for we know that they are too painful and too liable to suppurate. I do not claim that the oil injections are superior to the intravenous ones, but I do believe that they are practically as efficient, and that they are far easier to give. It is practically impossible to give the intravenous injections in either the home or the office. And it is now certain that relapses are more frequent after the intravenous than after the intramuscular method.

I believe that of the various methods of injecting "606" intramuscularly the oily method is the best, because it is the simplest and there is the least danger of infection, it is the least painful, and it is just as efficient. This last point is undoubtedly true clinically. Theoretically the objection has been made by some, including Neisser, that when the salvarsan was injected in solutions, as in alkaline form, it was absorbed far more readily than when injected in suspension. However, as Gardner points out, this is merely an assumption, and there is good evidence to show that Levy-Bing and Lafay are correct when they state that "606" is never absorbed directly, even when in solution, but first forms a coagulum, just as do injections of biniodide of mercury in oil.

Gardner, referring to alkaline injections, cites autopsies and states, "proof of this fact is found in the presence of nodules still containing arsenic in the gluteal muscles of patients who had received "606" two to six weeks before and had died of intercurrent affections."

My work has received criticism in two other directions; one, that Wassermanns were not done on all the patients, and secondly, that I could never get anywhere if I followed with mercury. I realize thoroughly the interest in employing the Wassermann in the early stages of syphilis and the necessity of employing it in the later stages, but I was so situated that I was unable to use the test with any confidence. I do not feel that it makes any great difference, for, to quote Osler: "We must not let the laboratory tail wag the clinical dog," and especially if the tail is a little stumpy. I have followed with mercury because I felt that it was essential to learn what effect mercury would have in connection with "606." I soon found that where mercury had very little effect before the salvarsan it had rapid effect after it. This seemed to me such an important point that I determined to try it in most cases. The poor, the dispensary and the hospital cases, to whom only one dose is available, will benefit by this. Nor do I stand alone in advising the use of mercury following salvarsan: in Germany, such men as Neisser and Gennerich; in France, Emery, and in our country, Fordyce and Gottheil, insist upon its use.

As with other injections of "606," the oily injections have certain dangers. I am in the habit of telling my patients the following: (1) "606" has not been demonstrated to be a permanent cure; in fact, the reverse is true; but one, or perhaps two doses, will probably cure your symptoms for the time being. (2) You must take mercury afterwards just as though you had not taken the "606" treatment. (3) You run one chance in 100 of having an abscess form at the site of injection; (4) one chance in 500 of having a pulmonary embolism; (5) one chance in 10,000 or less of having optic neuritis develop, especially if you have ever taken much arsenic; (6) one chance in ten of having considerable local pain.

The next question that naturally arises is when one should or should not use salvarsan. The following seem to me to be the indications for its use: (1) Cases that do not stand mercury well or that are intractable to mercury. When we say that a case is intractable to mercury we usually mean that it is intractable to the form of mercury that we have been using. I have had several cases of syphilis that would not respond to mercury by mouth or by inunction, and that healed readily under the use of calomel injections. On the other hand, we should remember that mercury may do a great deal of damage, especially to the kidneys. In the last three years I have seen three cases of mer-

curial nephritis, one of which ended fatally. It is most important that we examine frequently the urine of patients who are taking mercurials, especially in the early stages of syphilis or where there is a high blood pressure. (2) Cases of malignant syphilis. Here I feel that we should combine mercurial treatment from the start. (3) Cases with mucous patches, or with syphilis of the mouth or throat. "606" seems to work especially well upon these patients. It must be borne in mind also that the danger to others is lessened by the speedy relief of this class. (4) Chancres, especially extragenital, as soon as a correct diagnosis is made. (5) Early or late cases of tabes, for the relief of pain only. This is frequently marked. The other symptoms are very little changed. (6) In paralyses of syphilitic origin.

To sum up, we may use salvarsan to relieve the symptoms of syphilis in a rapid manner; it is frequently necessary to repeat the dose.

The drug should not be used in the following conditions:

(1) In general paresis. (2) In uncompensated cardio-renal diseases, or in aneurysm. (3) In active disease of the central nervous system. (4) In cachectic individuals, unless it seems the only hope of saving life. (5) In young babies with severe hereditary syphilis. In these cases death frequently ensues, apparently because of the freeing of an enormous amount of endotoxin from the bodies of the killed spirochaetes. (6) Where there is a tendency to hemorrhage, as in gastric ulcer. This is because the drug is a marked vaso-dilator. (7) Ehrlich has recently added, in cases of diabetes. (8) Following large doses of arsenic, for these may sensitize the cranial nerves to salvarsan. (9) In persons showing no active symptoms, for it is now definitely established that it is not a permanent cure. (10) In various skin lesions in place of arsenic, for here it does no good.

Case 1.—Negro, male; aged, 27. Severe papular lues of three months' duration. Inunctions for two weeks with slight improvement. Injection of .6 G. of "606" into buttock. Next day temperature arose to 100, and reached that point for the following five days. Some soreness that lasted eight days. Induration lasted two weeks. At end of three weeks marked improvement. Lesions entirely cleared up under two injections of $\frac{3}{4}$ gr. each of calomel. No lesions five weeks after injection. About two months later this case relapsed.

Case 2.—Negro, male; aged, 26. Annular lesions of face for one week. .5 G. "606" caused lesions to entirely disappear in six days. Two days after injection temperature reached 100, and reached that point for the four following days. Slight soreness and induration for three days, beginning on the second day after injection.

Case 3.—Negro, male; aged, 32. Tubercular syphilis of scrotum for six months; no treatment. .1 G. of "606" in 5 cc. of

oil. Considerable pain and tenderness and slight tumefaction lasting for ten days. Highest temperature 99. The lesions were made considerably brighter and some ulceration took place. Patient then lost sight of. A beautiful example of the Herxheimer reaction.

Case 4.—Negro, male; aged, 28. Paralysis of rt. external rectus muscle, and slight spastic paralysis of l. arm and leg. .6 G. of "606." Very little tenderness or induration. All paralyses much better in two weeks.

Case 5.—White, male; age, 30. Maculo-papulars for two months. Slight mercurial treatment with no improvement. .6 G. "606" in plain paraffin oil. Considerable induration and tenderness, confined to house for ten days. Lesions disappeared in less than two weeks.

Case 6.—White, male; aged, 57. Tabes for over ten years. Ataxia, girdle pains, cramplike pains in feet, and some incontinence of urine. Positive Wassermann. Eyegrounds showed some degenerative optic atrophy. .3 G. "606". Absolutely no local tenderness and practically no induration. Three days later temperature reached 102, having been steadily rising at night since injection. Two weeks later had had no attacks of pain and felt generally very much better. One week later attacks were just as frequent but much less severe. After three weekly injections of grey oil he was worse in every way though much better than before beginning treatment. One week later was showing signs of salivation, and had steadily grown worse, so treatment was stopped. In a few days he began to improve, and two weeks later was very much better than at any time before. Since then there has been a relapse, though the pains are not so severe as at first.

Case 7.—White, male; aged, 44; referred by Dr. Polkinhorn. Tertiary syphilis of throat for several years. The uvula was gone, and there was a large ulcer covering over half of the epiglottis, covered with a dirty slough. Under mercurial treatment pain had stopped promptly. .5 G. "606." Some tenderness and soreness which lasted for eight days. Only missed half a day at work. Two days after injection slough had disappeared. Two weeks later granulating nicely.

Case 8.—Negro, female; aged, 35. Multiple gummata of legs, some broken down and some still nodular. Had been in the hospital three months, and had been three times salivated, with no improvement. .6 G. "606." Some induration, which lasted two weeks; very little tenderness. In five days all lesions were very much better, all tenderness had left them. In ten days all lesions were absolutely gone.

Case 9.—White, female; aged, 37. Unilateral palmar syphilis for ten years. Under vigorous mercurial injections and a rather severe x-ray burn the lesions temporarily disappeared, but almost immediately recurred. Patient was lost sight of for six months;

when she reappeared lesions were much worse, and in addition there was a large tubercular lesion on the back of hand. Under calomel injections there was only very slight improvement. .6 G. "606." Two days later some tenderness and stiffness. One week after injection, was seized with severe pain in buttock, requiring morphine. Two days later there was some induration left, and some stiffness; hand was much better. Three weeks after injection injections of calomel were begun; hand was then much better. Five weeks after injection back of hand was practically well and palm much better. It was interesting to note that a new lesion on back of other hand grew worse after salvarsan, but disappeared promptly under calomel.

Case 10.—White, female; aged, 12. Referred by Dr. Polkinhorn. Hereditary syphilis of nose and cheek, had healed and again broken down. .4 G. "606." Very little inconvenience or fever. Considerable improvement at the end of five weeks, but gumma not entirely healed. Relapse one week later as the result of an accidental blow. Three weeks later, however, this had healed.

Case 11.—Negro, male; aged, 43. Tubercular syphilis of forehead and eyelids, and periostitis of hands for 18 months. No improvement under very vigorous mercurial course, including injections of calomel. .6 G. "606," some soreness, but did uot miss a day's work. At the end of three weeks lesions were softer and smaller, but only a little. Three calomel injections have further increased this softening, but the patient is still far from cured. Three weeks later is worse. Lesions are harder.

Case 12.—White, male; aged, 27. Severe macular syphilis for five months, refractory to mercurials by mouth. Two ulcers on hard palate that were very painful. .6 G. "606." Immediately that injection was begun patient turned cyanotic and began to cough severely. Needle was inserted elsewhere and injection finished. Patient coughed much and looked sick. Pulse good. One-half gr. codeine was given by mouth and this was followed by ¼ gr. morphine hypodermically. Two hours later patient was taken home with diagnosis of pulmonary embolism. He complained of much pain in left side of chest and said that he could taste creosote in his sputum. Two days later one ulcer in mouth was entirely gone, and the other had lost its pain. Felt weak and coughed considerably, had spat up considerable blood. Respirations 32, no local signs in lungs. Twelve days later was much better. Skin lesions were rapidly fading. Those on back and arm were practically gone. A few rales at the end of inspiration could now be heard in the 3d left intercostal space front and at angle of scapula. Whispered voice sounds were increased over same area. At no time did this patient have the slightest local pain or soreness.

Case 13.—Negro, female; aged, 49. Iritis and rheumatism

for six months, mercury unavailing. .6 G. "606," no fever, and only slight stiffness. Iritis and rheumatism disappeared within a week, and six weeks later had not returned.

Case 14.—Negro, female; aged, 24. Gummata of eyeball, with softening of eyeball. .6 G. "606." No fever, some soreness, and was confined to bed for two days. One week later the open ulcers had healed over. Local induration and soreness lasted nearly one month.

Case 15.—Negro, female; aged, 34. Gumma of muscle back of knee, which had broken down from secondary infection. .6 G. "606," which caused no fever, but considerable soreness for two weeks, probably due to thin musculature. Some improvement at end of two weeks. Local induration persisting at end of one month.

Case 16.—White, male; aged, 43; referred by Dr. Reede. Palmar syphilis, and glands of neck, and an evident intrathoracic mass, which probably caused his pseudoasthmatic attacks. Thinking that there might be syphilitic glands, .6 G. "606" was given. At time of administration the man's hemoglobin was but 50 per cent., and he was weak and sick. Some local pain and tenderness that lasted only three days. In four days the hands began to improve, and two weeks later are very much better. The glands in the neck have not changed. Patient has passed through another pseudoasthmatic attack, and was evidently weaker than in the others. Also he has become more anemic.

Out of the sixteen cases that I have treated by this method only two were unimproved; one of these was given a minute dose to see what the result would be, and the other was a case that has proven absolutely resistant to mercury in any form. In all cases there has been a leucocytosis following injection: the white cells rose about 5,000 in number. The differential blood counts show very few changes, there being only a very slight rise in both the absolute and relative number of the small lymphocytes. Seven of the cases had fever, never over 100, except in the case of the tabetic, where it rose to 102. Only one case has any acute local pain, and that in a very nervous woman. She was the only patient who required an opiate in any form. Two of the cases had absolutely no local tenderness, and six had very slight tenderness that lasted three days or less. In all cases save two the local induration has disappeared in ten days or less; in one of these cases it is still persisting at the end of nearly one month; it should be noted that both of these patients had very small gluteal muscles. Barring the one case where the induration still persists there has been only one accident, and that a pulmonary embolism. There have been three relapses up to the present time.

In conclusion, I desire to thank Dr. Warfield, superintendent

of Freedmen's Hospital, for putting at my disposal a supply of "606," and for giving me every facility for using it. Ten of my cases were from the service of the hospital.

CONCLUSIONS.

(1) "606" in any combination is not a sure or a permanent cure for syphilis, and although it is usually more efficient than mercury it should be remembered that mercury occasionally works wonders.

(2) The intravenous injections are more difficult to give, are practically no more efficient, and are more apt to be followed by relapses than the intramuscular injections. If properly given the bad after effects are very transient.

(3) The oily injections are the easiest to give, and the least painful to the patient, if Pollitzer's observations are confirmed, free from any after pains.

(4) Salvarsan should be followed by a course of mercury; mercury is rendered more efficient by "606."

(5) The chief use of "606" will probably be to relieve the symptoms of syphilis and to shorten the contagious period, and not to replace mercury, but rather to aid it.

BIBLIOGRAPHY.

1. Ehrlich, *München. med. Wchnschr.*, 1911, LVIII, 1.
2. Emery, *La clinique*, 1910, pp. 644, 659.
3. Fordyce, *Med. Rec.*, 1911, LXXIX, 644.
4. Gardner, *Jour. Cutan. Dis.*, 1910, XXVIII, 694; 1911, XXIX, 37.
5. Gennerich, *Berl. klin. Wchnschr.*, 1910, XLVII, 1735.
6. Gottheil, *Med. Rec.*, 1911, LXXIX, 644.
7. Kromayer, *Berl. klin. Wchnschr.*, 1910, XLVII, 1698.
8. Lambkin, A System of Syphilis (Power & Murphy), II, 294.
9. Levy-Bing & Lafay, *Gaz. d. hop.*, 1910, LVIII, 1627; Bull. soc. franc. de dermat. et de syph., 1910, XXI, 217.
10. Neisser, *Deutsch. med. Wchnschr.*, 1910, XXXVI, 1889.
11. Pollitzer, *New York Med. Jour.*, 1911, XCIII, 403.

Dr. Hagner had enjoyed the paper. Dr. Hazen deserved credit for his careful investigation of the method described. Dr. Hagner had never used the oily injections; his own patients treated with the alkaline solution seemed to have a little more pain, but usually they were out in two days. The personal equation seemed to have much to do with the amount of pain suffered. As to the size of the dose, the larger, more dilute solutions seemed to give less pain than the smaller, more concentrated ones. As to the possibility of soluble preparations causing necrosis of muscle, he rather thought there was less danger of this accident with soluble preparations than with the insoluble ones. He cited a case in which the entire dose had been taken out of the gluteus muscle several months after its injection, having become encysted.

He now gives larger doses than were originally recommended; his routine practice being to give 0.60 gm. intravenously. He has now given about 100 doses of salvarsan in 86 cases; there have been no bad results and the remedial effects are superior to those obtainable from any other agent. He thought that Dr. Hazen had been giving too small doses; he had himself seen one case in which the exhibition of a small dose of salvarsan had been followed by exaggerated syphilitic symptoms. The Herxheimer reaction was due to too small a dose. It seemed to him that these cases must be kept entirely off mercury if we are to estimate with accuracy the effect of salvarsan. The use of small doses tends to produce tolerance of the drug on the part of the treponema. He had not met with a case of pulmonary embolism, although with more extended experience he was prepared to meet with it.

Dr. Staples asked if salvarsan is a cure for syphilis, or is it only a temporary relief? Can we assure a patient that with the use of this drug his syphilis can be eradicated?

Dr. Ramsburgh reported a case in which he had used cacodylate of soda and later salvarsan. The patient had been under observation for a number of years. He had given alkaline solution of salvarsan in other cases, but it had caused so much pain that he hesitated to use it in the case of this woman. He therefore gave gr. 1½ cacodylate of soda; three days later another dose of gr. 3½, and three days later another dose of gr. 5½. There was no improvement. He then heard of the method described by Dr. Hazen, and gave this woman salvarsan in the oil as prepared by Dr. Hazen, with the result that the patient was cured of her badly ulcerated throat in ten days. Later other injections of salvarsan were given by the same method for constitutional improvement. So far, apparent cure.

Dr. Borden asked to what extent had Dr. Hazen followed up his cases with tests for the Wassermann reaction. The paper seemed defective in that this information was not given. These cases should all be controlled by the Wassermann test. Dr. Borden's few cases had been carefully followed by serological study, and the effects of the salvarsan medication upon the Wassermann reaction have been as interesting as the clinical course of the disease. He would suggest that a true test of the oily method of giving salvarsan should eliminate the concurrent administration of mercury and should be controlled by the Wassermann reaction. The preparation of alkaline solutions of salvarsan is not a very difficult matter. The oil preparations are suspensions merely, and the drug is insoluble; such preparations are supposed to be less effective than the soluble preparations.

Dr. Simpson said that the statement had been made that the preparation of the alkaline solution is not difficult; he would say as to that that ten years' experience behind the prescription

counter had not served to make the preparation easy in his hands. He wished to remark that certain cases of palmar syphilis, such as one mentioned by Dr. Hazen, may be mixed with eczema, and that local treatment with tar or salicylic ointment may produce quick results. It seemed to Dr. Simpson unfortunate that Dr. Hazen had in his tests mixed the treatment with mercury injections ; the beneficial results could not be assigned to either remedy.

Dr. E. F. King had seen at the Emergency Hospital in March a colored man with rupia ; he had had his initial sore in August, 1910 ; he said he had had "606" in January, 1911, at Freedmen's Hospital, being the first colored man in America to have the drug, according to his own statement. This was, therefore, at least one case of relapse, and was probably the Case 1 of Dr. Hazen's series.

Dr. Hazen said that his only intention in presenting the paper was to describe a simple technique for administering salvarsan ; it had not been presented as an elaborate treatise. The making of Wassermann tests has not heretofore been possible at Freedmen's Hospital, but he hopes to be able to make such tests later. He had followed the salvarsan by mercury in some cases experimentally, and had demonstrated that the effects of mercury are intensified by the use of salvarsan. This is important from several points of view, but especially from that of poor patients. As to the induration following injections of the oily suspension, this disappears in about ten days, as it does after the alkaline solution. He sterilizes the paraffin oil, although the oil is sterile anyhow. The cases of palmar syphilis reported by him had been carefully treated for a possible eczema.

Correct Business Methods Taught Physicians.—If the division of fees, contract and lodge practice, commissions from druggists, sly methods of advertising in newspapers in connection with operations and accidents are wrong in principle and hurtful both to the individuals who do such things and to the profession as a whole, why not give prospective physicians instruction in regard to these matters while they are being molded, so that they may at least start in the right direction? Instead of doing this, most of the medical colleges turn their graduates adrift at the end of the college course, without chart or compass, and then censure them and bemoan the perversity of human nature because they take the wrong direction. Most of them want to do right, and the majority finally get right but only after many false moves and mistakes, against which they should have been warned.—*Jr. A. M. A.*

THE BORDERLAND BETWEEN INTERNAL MEDICINE AND PSYCHIATRY.*

By William A. White, M. D.,

Superintendent Government Hospital for the Insane,

Washington, D. C.

In the present paper I desire, very briefly, to emphasize certain important features of the relationship between the internist and the psychiatrist. The various points might be extensively supported by casuistic material, but I will rest with simple statements, which I hope to be able to make plain and comprehensible. The matters discussed are clinical, and, I think, speak for themselves with sufficient emphasis, so that they will, for the most part, be acknowledged.

For many generations the internist and the psychiatrist have been working, each in his own field, largely unmindful of the other. It is only lately that there has grown up a recognition that this separation was radically wrong and that a union of both interests and efforts was desirable, and, in fact, coming to be vitally necessary. This general proposition I think you are all ready to freely admit.

The fundamental, underlying reasons for the separation that has always maintained between psychiatry and internal medicine are dependent upon the radically different viewpoints of these two departments of medicine. For example, neurology is a division of internal medicine, though it has always been assumed, in fact I never heard to the contrary, that a neurologist must of necessity understand mental disorders, and a psychiatrist, in the same way, must perforce be somewhat of a neurologist.

This error was and is a most natural one and precisely what might be expected. What more natural than to suppose that neurology and psychiatry, both engaged in problems of the central nervous organs, should be, therefore, closely related? And, as a matter of fact, they are closely related, but in a sense somewhat different from that implied.

My object, however, is neither discussion nor criticism. In a very few words I wish to bring concretely to your attention the particular problems that occupy the borderland between internal medicine and psychiatry, and by so doing emphasize how much the workers in each field need those in the other, and how important is a proper understanding and coöperation for progress.

I. Of great importance in this borderland region are the symptomatic psychoses†—the mental disorders that arise in the course

* Read before the Medical Society, May 24, 1911.

† Die symptomatischen Psychosen im Gefolge von akuten Infektionen und inneren Erkrankungen von Dr. K. Bonhoeffer, Leipzig und Wien. Franz Deuticke, 1910.

of various diseases, particularly the specific fevers, the chronic toxemias and various other diseases of nervous or obscure origin. To be more exact, I refer to such diseases as typhoid, erysipelas, rheumatism, scarlet fever, smallpox, malaria, cholera, pneumonia, influenza, pulmonary tuberculosis, septicemia, chorea, diabetes mellitus, Basedow's disease, tetany, myxedema, gastro-intestinal disorders and disorders of other viscera, such as the heart and kidneys.

Here we have a series of conditions that come almost wholly under the observation of the internist, and which the psychiatrist sees little of. They are, however, of the very greatest importance. While it is true that the symptomatic psychoses follow in general the course of the diseases of which they are the expression on the mental side, it is also true that the various somatic diseases may be the immediate causes of essential psychoses. You will instantly recognize the importance of this statement. A failure to recognize this fact, however, has led to the formulation of such conceptions as puerperal insanity, and time and energy have been wasted in working out percentages of recovery, with absolutely no recognition of the fact that not only may many forms of psychosis arise in the puerperium, but that during that period the individual is subjected to many, and not only one, form of stress. Of the various stresses I will mention only the more common for illustration. On the physical side we have exhaustion, hemorrhage and infection, while on the mental side we find such stresses as arise from the fact of the illegitimacy of the child. Correspondingly, we find most commonly the toxic, exhaustion and infection types of psychosis and dementia precox arising most frequently at this time. See how bootless is any proceeding that would consider the puerperal insanities as a single group—that failed to recognize the fact that different psychoses may develop at this time under the influence of the stresses incident to the puerperium.

Then another most important thing in connection with the symptomatic psychoses is that the symptomatology in the case of a true symptomatic psychosis may be closely similar to the symptomatology in a case in which an infection, for example, has merely been the liberating factor of an underlying psychosis. It may be necessary to follow the case for a considerable period of time in order to decide whether, in addition to the infectious symptomatology, some other psychosis may not have made its appearance.

It is easy to see from these considerations how necessary it is that these states should be fully studied, especially from the standpoint of defining diagnostic differentia.

II. Secondly, there is a group of cases I wish to emphasize, especially as they have been prominently brought to the front very recently. This is the group of visceral disturbances of psychic origin.

There is a large number of conditions in this group, particularly the false gastropathies, enteropathies, cardiopathies, etc., of Dèjerine, that belong in the realm of the psychoneuroses. There are, however, other visceral conditions that are related to the essential psychoses, and which are of very great importance. These are more particularly the gastro-enteric disturbances in the mild attacks of manic-depressive psychosis. These mild, cyclothemic conditions,* as they have been called, are hardly recognizable, even by the practiced observer, and are only understood when a full account of the patient's life is obtained. The visceral disturbances that go along with these conditions are, therefore, quite naturally credited with being the cause of the nervousness or neurastheniform condition of the patient. Patients with mild depression are called neurasthenic ; those with mild excitement are nervous, and accompanying physical states are credited with making the trouble, by all concerned. The patient and the relatives consistently take this attitude, and the physician naturally falls into it. No one wishes to acknowledge the possibility of a mental disorder, nor will he until forced to.

After a while these cases clear up, and with the disappearance of the mental symptoms the physical go also, and the change is attributed to some form of treatment, a special dietary regime, perhaps. Here we find, for example, those cases of nervous dyspepsia, in which the patient constantly suffers from depressing symptoms referable to the stomach, but in which repeated examinations of that viscus fail to disclose anything abnormal. These cases are extremely difficult to differentiate. The life history of the patient is not easy to obtain, as it is distorted by the viewpoints of the family. The impossibility of discovering any disease by the usual clinical tests should, however, always arouse the suspicion that the condition may be mental in origin.

I may mention here, too, because it is, I think, of considerable importance, the attacks of gastric disturbance that occur as prodromes of dementia precox.† It would seem in this class of cases as if there was not enough energy to go around and take care of all the bodily functions—that it must fail somewhere. We know how susceptible the stomach is to mental disturbances, and so this organ comes in for more than its share, perhaps, of disturbance of function. I am sure this group of cases will repay the most careful study, for although their existence is well known and they have been recognized for some time, little or nothing is known of the nature of the mechanisms involved.

III. A third group of cases that I will briefly mention are the toxic deliria. While alcohol and the various narcotics occupy

*Ueber Nervöse Dyspepsie, von Dr. Georges L. Dreyfus. Gustav Fischer, Jena, 1908.
Cyclothemia. The Mild Forms of Manic-Depressive Psychoses and the Manic-Depressive Constitution. By Smith Ely Jelliffe, M. D., *Amer. Jour. Insanity*, April, 1911.

†Die Dementia Praecox und ihre Stellung zum Manisch-Depressiven Irresein. Eine klinische Studie von Dr. med. M. Urstein. Berlin und Wien. Urban und Schwarzenberg, 1909.

the most prominent place in this group, it is not to them that I care especially to call your attention, but to that group of drug deliria that result, not so much from habit as from lack of control in administering medicines, or from over medication. It happens, every little while, that such a case is committed to the asylum as insane. While this is not strange when we know the varied symptomatology of these conditions, and especially their relatively long duration even after the drug is discontinued, it does emphasize the importance of this area in the borderland region, for it is surely a rather serious matter to commit to an asylum such a patient.

One of the practical difficulties with this class of cases is that the symptomatology by no means invariably follows the course of a simple confusion with incoherence—a delirioid condition. Not infrequently there is a considerable degree of lucidity present with a quite elaborate delusional formation based upon dream-like sensory falsifications. These dream-like states characteristically refer to previous experiences which are woven into the new hallucinatory fabric, and the whole presents a picture quite different from the commonly known drug delirium. These are the cases that are committed.

Another group of cases which I will consider here, but which are quite similar in many respects to certain of the cases considered under Group II, are the cases of dementia precox which are complicated with alcoholism. We have been led to distinguish a considerable group of these cases in which the early manifestations appear to be entirely those resulting from over-indulgence in alcohol where there may be a history of one or more attacks of apparently well-defined alcoholic delirium, but in which finally the patient does not clear up and remains to a certain degree impaired. These cases have recently been exhaustively studied by Karl Graeter.* We have reason to believe, as the result of these studies, that in many instances, at least, the alcoholism is but an expression of the prodromal symptoms of the psychosis—dementia precox. Here, again, you can easily see of what great importance it is to be able to distinguish these cases during their earlier manifestations. While the alcoholic presents one type of problem, and while a good prognosis from a first attack of alcoholic delirium may be made, as a rule, if the alcoholism is but a symptom of a more profound and fundamental disturbance the whole handling of the case must of necessity be modified as a result. Graeter has made an effort to point out in the early symptomatology of the alcoholic deliria evidences of the expression of a fundamental psychosis, and attention to these cases indicates that in many instances, at least, it can be done with some degree of certainty.

* Dementia Praecox mit Alcoholismus Chronicus. Eine klinische Studie über Demenz und chronisch paranoide Psychosen scheinbar alkoholischer Natur, von Dr. med. Karl Graeter. Barth, Leipzig, 1909.

It is in this group of cases of alcoholism as expressing dementia precox that we find those cases of apparent deterioration as the result of over-indulgence in alcohol which we are sometimes at a loss to explain, because the use of alcohol has not been relatively very great. The effect seems to be much greater than can reasonably be accounted for by the cause. To have called attention to this group of cases was a very important work. Their future study will undoubtedly be most profitable.

IV. And finally, there is the tremendous field of the psychoneuroses. Hysteria, neurasthenia and all that immense group of nervous patients we all know so well. These cases come almost exclusively under the care and observation of the general practitioner or the neurologist, and yet no group of cases is so important for the psychiatrist. I have emphasized repeatedly, and you have heard me, that if we are to learn anything about the origins and development of the psychoses we will be a long time at it if we have to rely upon the cases found in the asylums. These cases are for the most part end products of processes that have been going on for years and have reached a condition of complexity that makes their study discouragingly difficult. If we would see psychoses in the making we must have access to this host of the nervous, and yet these cases are in the hands of the family doctor and only rarely get into the asylum.

The asylum patient is in much the same relation to these early cases as is the pathological brain at autopsy. It is only an end product, and taken alone can seldom serve to throw light on the process that led up to it.

And here, lest we be misled into thinking that the bond of union between internal medicine and psychiatry will be found in pathology, I cannot refrain from reminding you that no matter what refinements the future may bring forth, we will never be able to turn from the microscope and, from what we have seen, reconstruct, as it were, the psychosis—build up again the delusional system and explain the interdependencies and relations of its several ideas.

It is to the psychoneuroses that we look now, more than anywhere else, for the illumination of that obscure, almost unknown region in which the psychoses are given birth. It is in the psychoneuroses that we see at work precisely the same mental mechanisms that we find when we study the psychology of everyday life. Here if anywhere, it would seem, are we going to get light on the problems of origin and, of no less importance, the problem of the spontaneous cure, the resolution of the psychosis. This latter is a process we see in operation all the time, but we know almost nothing about it, not enough even to intelligently do the things that would help it, nor avoid doing the things that would hinder it.

I think I have said enough to make my point clear—that the

internist and the psychiatrist must come together on this borderland territory for their mutual benefit; that there are problems in both fields that require for their solution the facts and methods of the other.

A still further and broader, but equally obvious implication of all this is the emphasis it places upon the necessity for more thorough instruction in psychology, normal and morbid, and its application to mental medicine in the medical schools. But as to this and other matters that might be raised I will weary you no further at this time.

Dr. Williams said that it is to Chaslin we owe the resuscitation of mutual interest between the internist and the psychiatrist; for he emphasized the importance of the toxic psychoses and through his synthesis of the "confusion mentale" syndrome, twenty years ago, demonstrated the interdependence between the internist and psychiatrist in the proper study and treatment of this class of cases. That attitude has been maintained in France; but in the United States and in Germany too many psychiatrists have been content with calling such cases merely by some generic term, ceasing then further elucidation. Bruce, of Scotland, attempted to learn the pathology of the living insane by a study of leucocytosis, serological and other blood changes, including bacteria content as well as the examination of other body fluids and secretions. But his work was vitiated by gross inexactness, both in psychiatric nosology and bacteriologic technic. However, he made a start in the right direction, for it is in this kind of work we must look for progress.

For example, in such symptomatic psychasthenia as later develop one of the "major psychoses" the underlying process may be more physical than mental. There are, of course, some pure psychic diseases, as the hysterias; but many psychoses are primarily merely some physical disease, with a psychic efflorescence, as paresis or delirium tremens or the psychoneuroses. In Dr. Williams' own work he often felt the great need of the coöperation of some worker in pathological chemistry to study the disordered metabolism at the root of many a mental perturbation. Even the mental emotional oscillations termed "manic-depressive" may be due to changes in the body fluids not now demonstrable.

Dr. Roy said that there was nothing more difficult at times for the internist to determine than whether in a given case the nervous system was primarily at fault, or whether there was a vicious circle between it and some other system. Under the head of autointoxication, however, we had some clearly recognizable conditions bearing upon the subject discussed by Dr. White; and particularly, autointoxication from the intestinal tract, originating from difficulties (1) in breaking up the protein molecule; (2) autointoxication from internal secretions, as the

adrenals, thyroids, pituitary body, etc. (these glands may be concerned in many obscure conditions of the nervous system that we are yet unable to recognize) ; and (3) autointoxication from toxins derived from the breaking down of body tissues, particularly of fat in cases of under-nutrition ; such poisons as acetone, oxybutyric acid, diacetic acid, etc. In such cases the estimation of the urinary output of chlorides and ammonia may be of great value as a dependable index of the state of nutrition. In the last class of cases much may be done by systematic overfeeding, which prevents destruction of body tissue.

Dr. Hickling said that the paper had opened up very many things deserving attention. It was probable that the majority of the conditions that belong in this borderland region arise from some physical defect ; these were not for the psychiatrist to clear up, the burden rested upon the internist. On the other hand, the psychiatrist must differentiate the pure psychoses and learn to cure them ; but in both classes both psychiatrist and internist must join hands in part of the labor. In the pure psychoses there was a great field for study, a field in which proper study would yield great results.

Dr. White merely wished in closing to revert to the object of the paper. He had wished to show that in the mutual aloofness which has hitherto characterized both psychiatrists and internists psychiatrists often do not know of the advances that have been made in the field of internal medicine, and, on the other hand, internists do not know of the advances made in the field of psychiatry. As a result of this condition the best results fail to be obtained in both fields. It is only by a combination of all the forces that progress can be made most rapidly and surely.

In Memoriam.

DR. ARTHUR C. FITCH.

Dr. Arthur C. Fitch was born in Delhi, Delaware County, New York, April 7, 1867. He attended the local schools until 1881, when his parents moved to Washingtonville, Orange County, New York, where he finished his preliminary education. A short time later he went to Waterford, Pa., and secured a position in a drug store. In 1890 he came to Washington, engaged in the drug business and entered the National College of Pharmacy, graduating in 1893. He later began the study of medicine at the Columbian University, receiving his degree in 1903. Shortly after his graduation in medicine he was appointed junior assist-

ant physician at the Government Hospital for the Insane, which position he held four years, resigning in 1909 to accept a position in the medical service of the Madeira-Mamore Railway Company. Following a stay of one year there he came to Washington for a brief vacation, returning to Brazil, this time as quarantine officer at Porto Vehlo, holding this position at the time of his death. Dr. Fitch was also a 32d degree Mason and a member of Dawson Lodge, F. A. A. M., of this city.

Your committee recommends the adoption of the following :

Resolved, That the members of the Medical Society of the District of Columbia have learned with profound grief of the sudden and unexpected death of their fellow member, Dr. Arthur C. Fitch, at Port Vehlo, Brazil, April 6, 1911.

Resolved, That the Corresponding Secretary be directed to forward to Dr. Fitch's family a copy of these resolutions.*

(Signed,) Lewis H. Taylor,
W. Robert Perkins,
W. H. Hough,
Committee.

Report of the Joint Committee on Amalgamation of the Medical Society and the Medical Association of the District of Columbia, April 26, 1911.

The committee appointed by the Medical Society of the District of Columbia to confer with a like committee from the Medical Association, D. C., makes the following report : After several conferences the committees in joint session April 13, 1911, unanimously adopted the following :

Resolved, That it is the sense of this joint committee of the Medical Association and Medical Society that action regarding amalgamation be deferred until July 1, 1911. If by that date, July 1, 1911, the Medical Society has not secured an amendment from the Congress of the United States to its present charter in conformity with the requirements for amalgamation, then the charter of the Medical Society be dropped and a name for the amalgamated body be adopted by vote, and incorporate under the general charter act in the D. C.

The committee on amalgamation in joint session, April 20, 1911, unanimously recommended to the Medical Association and the Medical Society, D. C., the adoption of the following constitution as promotive of amalgamation, the same to go into effect upon its adoption by both bodies.

---

* Adopted by the Medical Society, May 10, 1911.

Your committee recommends to the Medical Society, D. C., the adoption of the foregoing resolution and constitution.

Respectfully submitted.

G. Wythe Cook,
Chairman of the Committee.
J. B. Nichols.
Henry D. Fry.
J. W. Chappell.
D. Olin Leech.
John Van Rensselaer.
Wm. M. Sprigg.

April 26, 1911.

Proposed Amendment (Substitute) to the Constitution of the Medical Society and Association of the District of Columbia, Recommended by the Joint Committee on Amalgamation, April 20, 1911.

CONSTITUTION.

I.—NAME.

The name of this organization shall be The ———————— of the District of Columbia.

II.—OBJECT.

The object of this Society shall be the promotion, locally and generally, of the science and art of medicine and sanitation and the interests of the medical profession.

III.—STATUS.

1. This Society shall be a continuation and amalgamation of the Medical Society of the District of Columbia (founded September 26, 1817, and chartered by acts of Congress of February 16, 1819, and July 7, 1838) and the Medical Association of the District of Columbia (organized January —, 1833).

2. This Society shall be a representative medical organization of the District of Columbia, constituted and maintained in conformity with the general plan of the American Medical Association; it hereby declares its allegiance to the American Medical Association and agrees with other state and territorial medical associations to the formation and the perpetuation of the House of Delegates of the American Medical Association.

IV.—MEETINGS.

1. This Society shall hold regular meetings every Wednesday during the months from October to May, inclusive, excepting

the last two Wednesdays in December and Wednesdays falling on January first, beginning at eight o'clock P. M.

2. The meetings occurring on the first Wednesday (not a legal holiday) in the months of January, March, May and November shall constitute the stated meetings, and shall be devoted to the transaction of the formal business of the Society. The stated meeting occurring on the first Wednesday in January following New Year's Day of each year shall constitute the annual meeting of the Society, and shall be devoted to the reception of annual reports and other annual business.

3. The meeting on the first Wednesday of December of each year shall be devoted to the election of officers for the ensuing calendar year.

4. Aside from the stated meetings the regular meetings of this Society shall be devoted primarily and mainly to scientific proceedings, namely, the presentation of cases, specimens and papers on medical subjects. At such meetings current and routine business may be transacted, and also any emergency, urgent or necessary business that may arise. The conduct of the scientific programs of such meetings may be assigned equitably to the various sections; and social sessions may also be held.

5. Special meetings shall be held as may be ordered by the Society or Executive Committee, or upon the written request of any ten members.

6. Due notice of each regular and special meeting shall be sent to each active member, in which shall be specified, so far as possible, the program contemplated for the meeting, both as to scientific material and items of important business.

7. Any business due to be transacted at any stated, regular or special meeting of the Society may, if circumstances necessitate, by vote of the Society (or, in case of emergency, of the Executive Committee), be postponed to a specified subsequent meeting. Due notice of such postponement shall be sent to every member, and such postponed transactions shall be as valid as if effected at the original meeting.

V.—MEMBERSHIP.

1. The members of this Society shall be of three classes, active, associate and honorary.

2. Every active, associate and honorary member of either the Medical Society of the District of Columbia or the Medical Association of the District of Columbia, or of both, in good standing at the time this Constitution goes into effect shall, *ipso facto*, become a member (active, associate or honorary, as the case may be) of this Society; and the order of seniority of such members shall be reckoned from the date of their first admission into either of those bodies.

3. Active membership in this Society shall (with such excep-

tions as may occur in consequence of the operation of the foregoing section) be limited to reputable, regular, legally qualified practitioners of medicine residing in the District of Columbia, and solely or mainly engaged in the lawful practice of medicine therein.

4. Applications for active membership must be made in writing on forms provided by the Society, indorsed by three members of the Society, and sent to the Secretary, who shall present them at the next stated meeting of the Society. They shall then be referred to the Committee of Censors, who shall investigate and submit report thereon at the next ensuing stated meeting, when they shall be voted on by the Society. Due notice of the names of all candidates to be voted on for membership at each stated meeting shall be sent to all active members. The voting shall be by individual secret ballot (in no case by empowering any officer or member to cast a unanimous ballot), and a favorable concurrence of two-thirds of the votes cast shall effect election to membership. After election applicants shall, within three months, pay an admission fee of five dollars, and sign an obligation to be governed by the Constitution and By-Laws of this Society; whereupon they shall become full active members; and said admission fee shall constitute the dues for the current year.

5. This Society shall be governed and conducted exclusively by its active members.

6. Twenty-one active members present shall constitute a quorum for the valid transaction of the business of the Society.

7. All duties, obligations, and regulations as to their professional conduct and relations with this Society and with one another which shall be imposed by the Constitution and By-Laws of this Society shall be binding and mandatory upon all members, and for violation thereof they shall be subject to discipline by the Society.

8. Charges against any member or members must be submitted in writing, giving specific facts, to the Executive Committee, and shall then be fully and impartially investigated by them, the accused being given a fair hearing. Should this committee by a two-thirds vote find the accused guilty of a violation of the regulations of the Society, they shall submit their report and recommendations in writing to the Society at a regular meeting, due notice of such prospective report to be previously sent to all active members; the matter shall then lie over until a subsequent regular or special meeting to be fixed upon by vote of the Society; at which meeting (of which due notice shall be sent to all active members) the matter shall be discussed and acted upon, and such punishment (reprimand, fine, suspension, expulsion, and the like) may be imposed as may be determined upon by a concurrence of two-thirds of the votes cast. No punishment shall be imposed upon any member except after the foregoing procedure is carried out and by a two-thirds vote.

9. Any member who changes his residence or occupation in such a way as to extinguish his eligibility to membership in this Society may, unless he resign, be proceeded against in the manner specified in the foregoing section, with a view to terminating his membership.

10. All members two years in arrears in the payment of dues or assessments shall, at any stated meeting and after thirty days' notice, be dropped from membership, unless the indebtedness be remitted by a majority vote.

11. Members desirous of resigning from the Society shall submit a written resignation, which, after being read at any regular meeting, shall be voted on at the next regular meeting and, with the concurrence of a majority, be accepted. No resignation shall be accepted from a member who is indebted to the Society for dues or assessments, unless the latter are remitted.

12. Notice of the names of members resigned, dropped or expelled from the Society shall, at the next convenient opportunity, be sent to all the active members.

13. Medical men not eligible for active membership, scientists engaged in collateral lines of research, and members of the dental, pharmaceutical and veterinary professions shall be eligible for associate membership in the Society. They shall be elected in the same manner as active members, except that no admission fee shall be charged; they shall have the privilege of attending and participating in the scientific sessions of the Society, and shall receive its publications and notices of its meetings; they shall not vote or hold office in the Society, shall be subject to its discipline, and pay such dues and assessments as may be imposed by the Society.

14. Any physician, scientist, or other person who by reason of eminent contributions to medical or collateral science or of meritorious services to the medical profession deserves recognition may, by any three members in writing at any stated meeting, be proposed for honorary membership. The proposition shall be considered by the Committee of Censors and reported on at the next stated meeting, and shall then be voted on by the Society in the same manner as applications for active membership. Favorable concurrence of two-thirds of the votes cast shall effect admission of the candidate as an honorary member. Honorary members shall have the privilege of attending the meetings and participating in the scientific proceedings of the Society, but shall not hold office or vote; notices of meetings need not be sent to them unless they are resident in the District of Columbia or so desire.

VI.—OFFICERS.

1. The officers of this Society shall be a President, a First and a Second Vice-President, a Recording Secretary, a Corresponding Secretary and a Treasurer, who shall be elected by ballot on the

first Wednesday in December of each year, and on the first day of January following shall assume office and serve as such for the calendar year ensuing or until their successors assume office ; and a Delegate, with an Alternate, to the American Medical Association (who must have been members of the American Medical Association for at least two years), who shall be elected by ballot biennially on the first Wednesday of December of odd-number years, to serve for two years. The President and Vice-Presidents shall be ineligible for reëlection until after two years from the expiration of their terms of office.

2. Whenever a vacancy occurs in any office or elective committee membership, an election for the remainder of the term of office may be held at any regular meeting after due notice shall have been sent to all active members.

3. The President shall preside over the meetings of the Society ; authenticate by his signature the papers and disbursement warrants of the Society ; call special meetings at the request of the Executive Committee or any ten members ; deliver an annual address at some meeting in December of each year ; be *ex-officio* a member of the Executive Committee ; and perform such duties as may be imposed on him by the Society, or in general as pertain to his office.

4. The Vice-Presidents shall, in order of their rank, assume the duties of the President during his absence or inability to act.

5. The Recording Secretary shall make full records of the proceedings of the Society, and after their approval by the Society, preserve them in secure and permanent bound form ; he shall act as reading clerk at the meetings ; he shall be custodian of and responsible for all books, records, papers and other property of the Society (excepting funds and current financial records), which he shall keep in secure and accessible form ; he shall endeavor to obtain the signatures of newly elected members to the obligation to be governed by the Constitution and By-Laws of the Society, and perform in general such duties as may be imposed by the Society or are pertinent to his office. For his services he shall receive a salary of two hundred dollars per annum.

6. The Corresponding Secretary shall notify members and officers of their election, inform committee appointees of their selection and the duties with which they are charged, advise persons concerned of action affecting them taken by the Society, and in general conduct the correspondence of the Society ; he shall prepare proper credentials to the Delegate to the American Medical Association ; he shall maintain a complete and accurate list of active, associate and honorary members, with their addresses, and each year send such list to every member of the Society ; he shall, after conference with the Program Committee, a sufficient time previously send to all members, and to such others as may be designated, an announcement of each regular and special meet-

ing, specifying the cases, specimens and papers to be presented, the names of all applicants for membership to be voted on, reports of the Executive Committee on the investigation of accused members to be presented or considered and acted on, amendments to the Constitution and By-Laws and proposed special assessments to be voted on, postponed stated business, interim elections, and so far as possible all important items or the general character of the business to be transacted; he shall also notify the members of the names of those recently resigned, dropped or expelled; and perform such other duties as may be imposed on him or pertain to his office. For his services he shall receive a salary of two hundred dollars per annum.

7. The Treasurer shall collect and have charge of all moneys due the Society, sending out bills therefor at proper times; deposit them to the credit of the Society in a bank designated by it for that purpose; keep the accounts of the Society with its members and others; make all disbursements ordered by the Society on warrants authenticated by the President; keep an accurate record of receipts, disbursements, funds and assets; furnish such security as may be required; at each annual meeting, or at any time he is so ordered by the Society, shall render a statement of his accounts, with vouchers, which shall be audited by the Executive Committee; and he shall be *ex-officio* a member of the Executive Committee. For his services he shall receive a salary of two hundred dollars per annum.

8. The Delegate to the American Medical Association, or his Alternate, if he be unable to serve, shall attend the sessions of the House of Delegates of the American Medical Association as the accredited representative of this Society; and shall make report thereon at the next stated meeting of the Society.

VII.—STANDING COMMITTEES.

1. This Society shall maintain the following standing committees, namely, an Executive Committee, a Committee of Censors, a Committee on Program and a Committee on Publication.

2. The Executive Committee shall consist of the President, Treasurer, Delegate to the American Medical Association, the chairman of each section, and the chairmen of the Committee of Censors, the Committee on Program, and the Committee on Publication, *ex-officio*, and of nine elective members. The elective members shall be chosen on the first Wednesday of December in each year, to serve (after 1912) three years each; and shall be so arranged that each year the terms of office of three of them shall expire and then be refilled; vacancies occurring among the elective members may be filled by election of the Society for the remainder of the term of office; and no elective member at the expiration of his term shall be reëlected before the lapse of one

year. Seven members of the committee shall constitute a quorum for the transaction of business.

The Executive Committee shall maintain an organization by the annual election of a chairman, vice-chairman and secretary, and shall keep full records of its proceedings. It shall hold meetings at the discretion of its chairman or at the call of any three of its members. It shall keep informed in all matters pertaining to the objects, interests, policy and conduct of the Society, and report to the Society such recommendations as it may deem advisable. It shall exercise general oversight over the work of the officers, committees and sections. It shall annually audit the accounts of the Treasurer. It shall receive, investigate and report to the Society, in the manner hereinbefore prescribed, all charges against members of violation of requirements of the Constitution or By-Laws. It shall endeavor to adjust minor complaints and differences of members, without reporting to the Society; subject, however, to appeal to the Society. It shall consider, report upon, and under the direction of the Society, promote or oppose legislative matters affecting the Society. It shall perform such duties as the Society may assign to it; in emergencies it may act for the Society, reporting such action to the Society; and it shall be subject to the control and direction of the Society.

3. The Committee of Censors, Committee on Program and Committee on Publication shall consist of five members each, and shall be appointed by the President at the time of his assumption of office, to serve until their successors are appointed. Vacancies shall be filled as they occur by appointment by the President. The chairmen of these committees shall be designated by the respective committees, and shall be *ex-officio* members of the Executive Committee.

4. The Committee of Censors shall investigate and report upon applications for membership.

5. The Committee on Program shall secure and arrange for the presentation of medical cases, specimens and papers at the meetings of the Society, and shall prepare the notices of the business and scientific programs of the meetings to be sent to the members by the Corresponding Secretary.

6. The Committee on Publication shall have charge of the publication of the transactions of the Society; and its chairman and members shall be the Editor and Associate Editors of such periodical publication as may be issued.

VIII.—SECTIONS.

1. Whenever a sufficient demand therefor arises active and associate members may organize sections, composed of special classes of the membership or devoted to the consideration and promotion of special branches of medical science and art, by

securing the adoption of amendments to this Constitution recognizing and establishing each section by name as a definite department of this Society. Each section shall form and maintain an organization by adopting by-laws, and annually in December electing a chairman, vice-chairman and secretary, to serve for the ensuing calendar year. The chairman of each section shall, *ex-officio*, be a member of the Executive Committee of the Society. Any active or associate member of the Society may at his option join any section, but must conform to such financial or other regulations as may be imposed by the section, under penalty in case of not so conforming of forfeiting membership in the section. Each section shall arrange for the time and place of its meetings, but shall not hold sessions at the same time with the regular meetings of the Society; by arrangement with the Society or the Committee on Program, however, the scientific proceedings of regular meetings of the Society may, either occasionally or at stated intervals, be conducted by the sections. All members of the Society shall have the right to attend the scientific sessions of any section, but not without permission or invitation to participate in the discussions (except when held at the regular meetings of the Society). So far as possible, notices of the programs of the meetings of the sections shall be sent to all the members of the Society in conjunction with the notices of the weekly meetings of the latter. The transactions of the sections may be published with the transactions and proceedings of the general Society. Sections may at any time submit to the general Society reports or recommendations for the information or action of the latter. Each section shall be governed and conducted by its own members; but its proceedings and organization must conform to the Constitution and By-Laws of this Society, and it shall be subject to the control of, and appeal to, the Society; provided, that it shall require a two-thirds vote of the Society to reverse any action taken by any section. The Society shall not, without its consent, be put to any expense on behalf of any section. Each section shall furnish to the Society a copy of its by-laws and all amendments thereto, and shall submit such information concerning its operations as the Society may at any time require. Each section at the annual meeting shall submit a report of its proceedings during the preceding year, giving the names of its officers, the number of its members, the number of and attendance at its meetings, the work accomplished, and in general such information as may keep the Society advised as to its activity, success and character. The existence of any section may be terminated by the adoption of an amendment to this Constitution annulling its recognition and establishment.

2. The following sections are recognized and established as definite departments of this Society:

Section 1, on internal medicine.
Section 2, on surgery.
Section 3, on gynecology and obstetrics.
Section 4, on ophthalmology, otology, rhinology and laryngology.
Section 5, on medical history.
Section 6, on therapeutics.

IX.—FUNDS AND PROPERTY.

1. All funds, records, papers and property belonging to the Medical Society of the District of Columbia and the Medical Association of the District of Columbia at the time of their amalgamation shall become the property of this Society. All the records, minutes and important papers of these organizations shall be carefully and perpetually preserved.

2. Annual dues of four dollars shall be paid in January by each active member, and two dollars by each associate member; special assessments may also be levied at any meeting after due notice of such proposed action shall have been sent to the members. Dues and assessments may, in worthy cases, be remitted; and permanently in the case of deserving superannuated members.

X.—BY-LAWS.

1. By-Laws not inconsistent with this Constitution may be adopted by a favorable concurrence of two-thirds of the votes cast at any stated meeting, after having been proposed in writing at a previous stated meeting and a copy thereof been sent to all active members with a notice of the meeting at which their adoption is to be voted on.

2. The operation of any By-Law may, at any meeting and for a definite purpose, be suspended by a two-thirds vote; but for that purpose and at that meeting only.

XI.—AMENDMENTS.

1. Amendments to this Constitution or the By-Laws may be adopted by a favorable concurrence of two-thirds of the votes cast at any stated meeting, after having been proposed in writing at a previous stated meeting and a copy thereof been sent to all the active members with a notice of the meeting at which their adoption is to be voted on.

2. No provision of this Constitution shall be suspended or abrogated under any circumstances whatever, even by unanimous consent, except through amendment by the procedure specified in the foregoing section.

XII.—EFFECTUATION.

This Constitution shall go into effect upon its adoption by both the Medical Society of the District of Columbia and the Medical Association of the District of Columbia.

QUACKERY AND MEDICAL EDUCATION.*

By Tom A. Williams, M. B. C. M. (Edin.),
Washington, D. C.

The mysteriousness of medical science and art is fast passing away; and it is high time. That this happy event is being accomplished against the opposition of a large part of the medical profession merely shows the tenacity of conventionality. The aloofness of these men only perpetuates the lay ignorance, which is the feeding ground of the medical charlatan without or within the profession.

Some men say that instruction in hygiene should be received only from the family doctor. As it is prevention at which we aim, it is hard to see how this could be effected by a doctor who is called in only after the patient is taken sick. Besides, his words reach only a few persons, whereas the printed word, delivered with but little more effort, may reach thousands. Again, opinions vary, and the family doctor's personal views may conflict with those of some other physician's and the patient not only be puzzled, but lose confidence in the medical profession.

Instruction of Public by Doctors Collectively.—These objections are all met by the instruction of the public through the collective effort of medical men in coöperation with newspapers and other periodicals.

A feasible plan is as follows:

A medical association appoints a committee of about a dozen men and imposes upon them the duty of compiling each week a short, clear statement in simple language of the accepted views of medical science upon some question of hygiene concerning which the public requires accurate information. The responsibility for the statements is then not that of one man, who may impose himself upon an undiscriminating public and may lead it into error perhaps for venal ends, but is seated in a set of selected men who themselves are responsible to their colleagues. Self-interest and inaccuracy are thus eliminated in the greatest possible degree.

A plan of this kind would add enormously to the prestige of the medical profession by preventing exaggerated ideas on the part of the public as to the essentialness of differences of medical opinion. Scoffing at the ephemeralness of medical theory would then diminish; for theories still under discussion would be exploited only by men whose irresponsibility could be authoritatively declared through an impersonal medium. No blow more deadly to the charlatan could be given than that of the authoritative contradictions to the pretensions of their advertisements which could be furnished in the health columns.

* Read as part of a symposium entitled "The Problem of Quackery," printed in the *Amer. Jour. of Clin. Med.*, Chicago, Ill., July, 1911, p. 748.

The method is superior to that of establishing a health magazine under the auspices of the medical profession ; for the newspapers eventually reach everyone, whereas a health paper is read by only a few interested persons.

There is no doubt that susceptibility to the wiles of the charlatan has been nourished by the thousands of so-called physicians who emanated from the sham medical schools—now nearly suppressed. These men could only live in an environment of lay ignorance. The practice of medicine was a simple matter when it consisted merely of giving some drug as an antidote to each symptom. Such men could not conceive the genesis of affections or the processes occurring in the body. Their education was neither broad nor deep.

Some Causes of the Rampant Charlatanry.—But it is not only to these men that we must attribute blame for the arising of the charlatanry represented by the numerous special or exclusive medical cults. Had the pathogenesis of disease been more than mere guess-work the absurdities of homeopathy could have received no adherence. At a later day osteopathy and chiropractic would have had no opportunity had more medical men realized the nutritive influence of massage and the importance of reflex mechanical stimulations. A plea has been made for the retention of these special schools of practice, provided that applicants pass the examinations of the State board as to fundamentals of medicine. Only those who are ignorant of general practice could advocate such permission. In very few cases can a single mode of treatment be adhered to without detriment ; and only he who has considerable experience in all modes of treatment is capable of pronouncing an opinion as to what mode is most suitable in a particular case.

This consideration is believed by many not to apply to psychological disturbances. So far in error is this contention, however, and so widespread is it (medical men otherwise apparently intelligent having, to my knowledge, referred cases to lay faithhealers) that I have recently taken pains to illustrate the fallaciousness of this belief by the recital of some cases* which had been referred to me for psychic treatment, but which I found to be suffering from affections for which the therapeutic indication was physical and not psychological. In several cases the mental symptoms were due to cardiac insufficiency, in some to arterio-sclerosis, and in one remarkable example to a disorder of internal secretion ; while organic nervous disease is often incriminated.

The Necessity of Psychopathologic Knowledge.—A profound knowledge of psychopathology is necessary for the diagnosis of some few cases ; but a considerable number of persons could be safely managed by general practitioners who would take the trouble to obtain a knowledge of the diagnostic criteria of psy-

* Month. Cyclop. of Med. Sciences, May, 1911.

chogenetic disorders. It is unfortunate that the presentations available in the textbooks are, up to the present, entirely inadequate to this purpose. But medical periodicals are now devoting much attention to this aspect of medicine.

Of course, there are ill-digested theories, and many have rushed in where angels fear to tread. But a critical-minded man should not for long be deceived by the fantastical or ill-considered. How many medical men can offhand refute, to the satisfaction of a logical lay man, the false notions of the Christian scientist? Do we often find a doctor able to explain clearly the meaning of hypnosis? What conception of a psychogenically-contracted muscle has the average doctor? Regarding hysteria, how many physicians have transcended the inconsequential farrago compiled in the textbooks? When the Christian scientist's remark that a boil itself is not painful was related in a meeting of medical men discussing quackery, much laughter was heard. The spirit of derision will not refute the arguments of Christian science. In this case they are right. If you do not believe it, cut the afferent nerve from the boil, and then where is the pain?

Doctors' Mendaciousness Fosters Quackery.—Another medical attitude which fosters quackery is mendaciousness to patients and their friends. My experience has shown me that the doctor is *expected to conceal the truth*. Hence, all his statements are habitually received with qualifications. Were mutual confidence between patient and doctor the rule, untold suffering might be obviated, especially among persons with fine susceptibilities. Nowadays, many patients who suffer from false beliefs regarding their condition cannot have them removed by their physician; for the patient is convinced that the doctor is only lying to him in order to allay his alarm.

Absurd credulity regarding physiology and medicine is not confined to the poor or uneducated. The socalled higher education gives no immunity from this; for it often takes persons away from truth and nature and directs them toward the fallacies of metaphysics, the vagaries of false art and the sentimentality of an untrue literature.

The key to lock the door on the psychological quack is for the patient to know himself. This knowledge he can best obtain from a physician who has instructed himself in the psychology of the morbid and the healthy, and who has learned to analyze his patient's mind and does not fear to impart to him the truth which he seeks. His object should not be to inspire faith, but to impart knowledge and to secure healthy mental action.

Note 1. "Faith Healing" is a misnomer; faith never heals in itself, but it may prevent noxious influences of mental depression.

Note 2. How many physicians attempt, or are competent to investigate, the pretensions of those they employ to administer massage?

PROCEEDINGS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Wednesday, April 12, 1911.—The President, Dr. W. M. Barton, presided ; about 75 members present.

Dr. C. W. Richardson, Chairman of the Committee on Permanent Home for the Society, made the following report, which was adopted :

" The committee appointed to formulate a plan for providing a permanent home for the Medical Society of the District of Columbia, hereby respectfully submits the following recommendations for the Society's approval :

" 1st. That the Society endeavor to obtain from its members and other persons voluntary subscriptions or contributions to an amount aggregating $25,000.00.

" 2d. That none of these subscriptions be paid in until the whole sum of $25,000.00 has been subscribed for ; but when the aggregate subscriptions shall have reached the sum of $25,000.00, then each subscriber will be expected to pay to the Society in cash, or in three equal monthly installments, the amount of his or her subscription.

" 3d. When the sum of $25,000.00 shall have been paid in, but not until then, it is recommended that the Society appoint a special committee to select a suitable property for the proposed home ; said committee, however, shall make no purchase without having first obtained the consent of the Society thereto, and its approval of the selection made, as well as of the terms of sale and all other matters relating to the proposed negotiation. It is especially recommended that any property purchased shall be paid for in cash, without any promissory note, deferred payment or deed of trust."

(Signed) CHAS. W. RICHARDSON, *Chairman.*
A. F. A. KING.
W. M. BARTON.
JAMES D. MORGAN.
N. P. BARNES.
L. MACKALL.
H. T. A. LEMON, *Secretary.*

The committee recommend the printing of 1,000 subscription blanks of the following form ; the Society directed the Recording Secretary to have the work done :

I, the undersigned — — hereby subscribe —— dollars towards a fund of $25,000.00 to be expended in obtaining a permanent home for the Medical Society of the District of Columbia; it being understood and agreed that I will pay in my subscription to the said Medical Society (or to such person or persons as the

Society may authorize to receive it) as soon as other members of the Society, or other persons not members of the Society, shall have subscribed a sufficient sum to make, conjointly with my own subscription, the said total amount of $25,000.00.

Provided, however, that in case this total sum of $25,000.00 shall not have been subscribed for, as aforesaid, by members of the Society or by other persons not members of the Society, on or before the first day of January, 1912, then my own subscription shall automatically become null and void, and I shall then be as free from any financial obligation in the matter as if my subscription had never been made.

In witness whereof, I have hereunto affixed my hand and seal, in the City of Washington, D. C., on this — day of ——, 1911.

——— [SEAL.]

Witness : ——— ———.

Dr. Franzoni, Treasurer, made a report; the President, in recognizing the Doctor, felicitated him on his recovery from his late illness, on his return to active duty and in appreciation of his services to the Society.

On motion of Dr. I. S. Stone the Executive Committee was directed to consider the advisability of buying a stereopticon.

An appropriation of $60.00 for rent of meeting hall was made.

Dr. T. A. Williams exhibited an apparatus for administering salvarsan. Discussed by Dr. Hagner.

Dr. I. S. Stone read the essay of the evening, Iodine as an antiseptic, with special reference to sterilization of the skin. Discussed by Drs. W. P. Carr, Jack, H. D. Fry, Ramsburgh, A. B. Hooe, Neate, Randolph, Kober, Hagner, Bovée, Battle, Lowe, LaGarde, Spear and Snyder. See p. 175.

Wednesday, April 19.—The President, Dr. Barton, presided; about 65 members present.

Dr. G. Wythe Cook, Chairman of the Committee on Amalgamation, reported that the joint committee had unanimously agreed that if the charter of the Society should not be amended by Congress by July 1st it should be abandoned as an obstruction to amalgamation. The report was accepted.

Captain Henry D. Thomason, Medical Corps, U. S. A., was elected a member by invitation.

The Chair appointed Drs. L. H. Taylor, W. R. Perkins and W. H. Hough a committee to report resolutions of respect to the memory of Dr. A. C. Fitch.

Dr. A. B. Hooe read a paper, Ileus, with report of cases. Discussed by Drs. Schreiber, Chappell, Borden, Jack and Hooe.

Dr. H. H. Hazen read a paper, Oily injection of 606. Discussed by Drs. Hagner, Staples, Ramsburgh, Borden, Simpson, E. F. King and Hazen. See p. 181.

Wednesday, April 26.—The President, Dr. Barton, presided ; about 65 members present.

Dr. G. Wythe Cook, Chairman of the Committee on Amalgamation, made report and recommendations, which were accepted and adopted. See p. 198.

Dr. C. W. Richardson, of the Committee in Charge of Amendments to the Charter, reported progress ; a bill had been introduced into each House of Congress, but there was doubt as to securing consideration of the bill before July.

Dr. Frank Baker addressed the Society on the Development of anatomical illustration. Illustrated by stereopticon slides. Discussed by Drs. Macatee, W. P. Carr and Baker.

Wednesday, May 3.—Joint meeting of the Medical and Anthropological Societies ; Dr. Barton, presided ; about 50 persons present.

Dr. D. S. Lamb read a paper on the Diseases and injuries of the pre-Columbian people of this hemisphere, as shown by the specimens in the Army Medical Museum.

Dr. Ales Hrdlicka, Curator of Physical Anthropology of the U. S. National Museum, made remarks on the same subject. Each gentleman showed a large number of bone specimens from the respective museums illustrative of the subject.

Discussed by Drs. Kober, LaGarde, E. L. Morgan, Carr, Williams, Lamb and Hrdlicka.

Wednesday, May 10.—The President, Dr. Barton, presided ; about 35 members present.

Dr. L. H. Taylor, from the Committee on resolutions of respect to the memory of Dr. A. C. Fitch, reported resolutions ; adopted by the Society. See p. 197.

The Treasurer reported for April : Receipts, $29.00 ; expenditures, $195.00.

An offer of the medical library of Dr. Ralph Walsh as a gift to the Society was made ; on motion, the Secretary was instructed to express the thanks of the Society to Dr. Walsh and to regret that the Society was unable properly to care for the books, and, therefore, felt that the offer ought to declined.

Dr. I. S. Stone presented a number of pathological specimens, with histories of the cases : (1) Broad ligament cysts ; (2) Hydrosalpinx ; (3) Sebaceous cyst of abdominal wall at umbilicus ; (4) Fibroid tumors of uterus.

Cyst of broad ligament with unusual complications. Anomalous position of the ureter.—Mrs. P., white ; age, 22 ; married ; mother of one child three years old ; consulted her family physician, Dr. T. C. Smith, in August, 1910, with the idea that she was pregnant. She had not missed a period, but had an irregular flow with considerable enlargement of the uterus and breasts, all of

which gave her physician the impression that she was possibly the victim of an ectopic pregnancy. But in a short time these symptoms disappeared and she did not return for examination until the latter part of March, 1911. She was still menstruating irregularly; had milk in her breasts; had the appearance of a pregnant woman at the fifth month; was not emaciated, and in most respects appeared to be in good health. She had at that time very little pain or tenderness in or about the uterus, although the abdomen was greatly distended with flatus simulating a phantom tumor. It was almost impossible to make a careful examination of the pelvic organs on account of the abdominal distension, but Dr. Stone decided that she was not pregnant in the normal way, although he had a reservation as to ectopic pregnancy. She was again seen in consultation in April, but by this time she had developed a tumor which filled the pelvis and extended nearly to the umbilicus. The growth was evidently cystic in character and was firmly pelvis-bound with indications of ectopic pregnancy or a possible broad ligament growth. Her breasts at this time had lessened in size and there was no longer any fluid in them. At the operation the growth was found to be a cyst of the right ovary, which appeared to have had its origin within the broad ligament of the corresponding side. Its enucleation was most difficult, owing to its relation to the ureter, which was imbedded in it and which necessitated its exposure for several inches of its length. An interesting feature of the difficult operation was an anomalous position of the ureter, the lower end of which entered the bladder at its extreme upper left margin at the junction of the round ligament with the uterus. Another interesting question arose at the operation, namely, the extent of ureteral exposure; in this instance the ureter was laid out free and in full view from the bladder to the pelvic brim. A rubber drainage tube was placed within the sac for the double purpose of discharging blood and serum, and was allowed to remain for eight days in the fear that necrosis might occur. The result of the operation was, however, perfectly satisfactory and the patient made a good recovery without further trouble. The specimen consisted of ovarian tissue, cystic degeneration and colloid contents. The tumor was not only within the ligament as described, but was firmly attached over the fundus uteri, bladder, and abdominal parietes, and elevated the sigmoid flexure nearly on a level with the umbilicus. It was probable that the tumor was present as long ago as August, 1910, and that rupture occurred afterward, thus reducing its size and adding to the difficulty of making a diagnosis.

Dr. T. C. Smith said that this patient, a young woman of 23, had married young and had one child three years old. She came to him with an enlargement of the uterus, nausea, and irregular menstruation; he thought that she was pregnant. After a month

or two, however, she began to menstruate regularly and profusely. He then was undecided as to her real condition. He consulted with several physicians as to the propriety of exploring the uterus; it was decided that such a step was not justifiable. She still had a large abdomen and breasts, and there was milk in the breasts. Then Dr. Stone saw her with him, made an examination and declared her not pregnant; later the tumors were found, and at the operation which followed the specimens were removed.

An interesting fact in connection with this case was that 30 years ago he had operated on the mother of this patient's husband and had removed a colloid cyst weighing 30 pounds. The woman recovered (an unusual event in those days after such an operation) and afterwards gave birth to the boy who now is the husband of the patient whose history had just been given.

Suppurating sebaceous cyst near the umbilicus, with symptoms of perforation of the peritoneum.—Mrs. M., white; age, 25; was seen by Dr. Roy, in 1910, during an attack of pain accompanied by fever and nausea. There was but little external evidence of infection, but the mass which later proved to be an abscess, containing about two drams, appeared to be upon the peritoneum, and there was evidence of sufficient peritoneal mischief to justify an exploration of the peritoneal cavity. Dr. Stone saw the patient with Dr. Roy, on the third day after the inception of the attack, and after the latter had fully decided upon the necessity for surgical treatment. At this time the patient had a temperature of 102, pulse 108 and a leucocytosis of 11,000. He approved of the advice already given by Dr. Roy, and the patient was at once sent to the hospital for operation. Dr. Stone proceeded with rather more than the usual caution in this case, as he had an idea that the appendix, or possibly other bowel, might be perforated. Such was not the case, however, although he found that an attempt had been made by nature to safeguard the patient against rupture of the abscess within the peritoneal cavity, as shown by extensive and very firm adhesions of the omentum and abdominal parietes. The entire sac was dissected out, along with its infectious contents, and the wound allowed to heal by granulation. The patient had no complications during her convalescence and left the hospital in two weeks after operation.

Dr. Macatee read the paper for the evening; title, School laggards. Discussed by Drs. Woodward, Lochboehler, Chappell, E. L. Morgan, S. S. Adams, Heitmuller and Macatee. See July ANNALS.

Wednesday, May 17.—The President, Dr. Barton, presided; about 60 members present.

Dr. Wellington, from the Executive Committee, reported that the committee had considered the resolution offered by Dr. A. F. A.

King, "Is it, or is it not, ethical and desirable that our publication, the WASHINGTON MEDICAL ANNALS, should be sent to one or more or all of the daily papers of this city?" and had also considered a resolution offered by Dr. I. S. Stone in regard to buying a stereopticon. The committee recommended that action on these resolutions be deferred until the fall of the year. Adopted.

Dr. G. Brown Miller presented a specimen of Lipoma of the kidney, with report of the case.

The patient, a women 51 years old, was operated upon about 1907, and a fixation of the kidney was done. No sequel was noticed until about 1909, when enlargement of the abdomen was evident. A few months ago she began to suffer with epigastric pain, some vomiting, constipation and general ill health. She was of healthy appearance and rather fat; palpation showed a tumor in the right flank, extending from the ribs to the ilium and beyond the median line; the tumor was evidently of kidney origin, but its nature was obscure. The urine was normal; a catheterized specimen from left ureter showed the same character as that from the bladder; the catheter entered the right ureter for two or three inches only and obtained no urine.

Operation: Incision was made from the twelfth rib to one inch to the inner side of the crest of the ilium; the fibers of the external oblique muscle were separated, the internal oblique and transversalis were incised; the kidney was found fixed as a result of the old operation, but atrophied; the tumor surrounded it and, extending beneath, lifted the kidney until atrophy had been caused by pressure. The ureter was much stretched and atrophied; it looked like a nerve and had for a moment deceived Dr. Miller as to its identity. His first thought was that the tumor was malignant. The vessels were tied and cut; then the ureter was cut, and no urine came from ureter or from pelvis of kidney. The tumor was readily delivered; it consisted of many lobules and easily shelled out with blunt dissection with the hand. The kidney was then cut away from its artificial fixation. She made a good recovery.

He had not had time to look up the subject thoroughly, but from such reading as he had been able to do, he found that the condition was not as rare as he had believed; Morris reported some cases in which the tumor weighed as much as forty pounds. These tumors usually occur in adults, and the kidney is usually intimately related to the tumor. Removal was generally easy; some cases, however, showed adhesions to the bowel, making resection sometimes necessary.

Dr. Jack said that these tumors were rather rare and always interesting, because they had been operated on for everything from omental cysts to fibroids. He had had one case; the diagnosis was probably omental cyst, but he encountered a lipoma

such as the one exhibited. The tumor shelled out easily and the patient did well for nine days, when, contrary to advice, the patient went home, broke open the wound and died from the effects.

Dr. S. S. Adams presented a specimen of tuberculous tumor of the brain, with report of the case.

Colored boy, two years old; parents and the other children living and well. He was well until about one year old, when he had summer complaint. Teeth did not begin to erupt until he was over a year old. About November 9, 1910, he fell from a table and hurt his left leg. December 5, had fever and loose stools, but rapidly recovered. Was admitted to Children's Hospital, December 9; had pain in leg, especially when handled; was uable to use it; left-knee jerk absent; leg everted; arc of rotation at hipjoint diminished; had had bilateral otorrhea for about six months; head seemed abnormally large; he was generally well developed; he cried a good deal; skin of trunk hot and dry; cough; normal resonance and expansion of both lungs; respiration harsh; heart beat accelerated; sounds normal; radial pulse weak. The otorrhea increased and diminished by turns. December 21, he had an eruption of chicken pox; cough occasional. February 21, fretful; abdomen distended and tender on pressure. 27th, tonsils enlarged; throat sore; moist rales over both lungs, most marked posteriorly. March 1, labored breathing; rigidity of muscles at back of neck; he seemed stupid; cried when handled. 2d, pupils dilated, reacted slowly to light; conjunctival reflex diminished; coma. Died March 5.

Temperature in December ranged from 97.8 to 101; in January, 98 to 103; in February, 98.6 to 102.6. Pulse during same periods, 96 to 136, 88 to 156, 90 to 140. Respirations, 24 to 48, 20 to 56, 26 to 48.

Necroscopy by Dr. Harry A. Ong, limited to the head: tension of brain normal; membranes normal; pacchionian bodies large. Firm nodular tumor encapsulated, about the size of a walnut, in left occipital pole; surrounding substance softened, center of tumor caseated. Two other similar tumors in right occipital lobe. Similar tumor, size of marble, in right temporal lobe, near the pole. Similar tumor in right thalamus. Microscopical examination showed giant cells and tubercle bacilli.

Dr. D. S. Lamb presented specimens of (1) Rickets; and (2) Hookworm ova.

Dr. S. S. Adams addressed the Society upon Milk stations as centers of education in an attempt to reduce infant mortality. Discussed by Drs. Acker, G. Lloyd Magruder, Tayler-Jones, Woodward, Williams, Gannon and Adams.

Wednesday, May 24.—The President, Dr. Barton, presided; about 80 members present.

An appropriation of $100.00 was made to defray the cost of lighting and janitor service from October, 1910, to May, 1911.

The Treasurer reported that all the candidates for membership recently elected had signed the constitution, except four; one of these, Dr. T. A. Poole, desired to delay signing until after the prospective amalgamation with the Association.

Dr. A. R. Shands reported a case of hip-joint amputation, with specimen. Discussed by Drs. W. P. Carr, Jack and Shands.

Dr. W. P. Carr read a Review of surgery. Discussed by Drs. Reichelderfer, Hagner, Jack and Carr.

Dr. Wm. A. White, Superintendent of the Government Hospital for the Insane, read a paper, The borderland between internal medicine and psychiatry. Discussed by Drs. Williams, Roy, Hickling and White. See p. 191.

Wednesday, May 31.—The President, Dr. Barton, presided; about 50 members present.

Dr. E. N. Shipp, U. S. Navy, was elected a member by invitation.

An appropriation of $94.71 was made for publication of the May number of the ANNALS.

The Treasurer was authorized to expend such sum as might be required for necessary printing in the discharge of his duties.

Dr. Tom A. Williams stated that he had brought to the attention of the Society at a previous meeting certain circulars from a firm in Ohio who represent that they maintain a hospital for the cure of inebriates and drug habitués; these circulars have been distributed through the mail and were of such an objectionable and questionable nature that he asked the Society to take action in the matter. The Society had referred the matter back to him with authority to appeal to the Postmaster-General. He had decided that he was not the proper person to do this and wished accordingly to so report; he moved that the matter be taken out of his hands and referred to the appropriate committee for consideration and report. The motion was carried.

Dr. E. P. Magruder read the paper for the evening. Title: Operative treatment of fractures. Illustrated with lantern slides. Discussed by Drs. J. Ford Thompson, Rhoades, Borden, J. F. Mitchell, Reichelderfer, Jack, Wellington and E. P. Magruder.

The Society adjourned *sine die* for the first session of 1911.

Stated Meeting, Monday, July 3.—The President, Dr. Barton, presided; about 30 members present.

The following applicants for active membership were proposed and referred to the Board of Censors:

R. T. J. Barber, College Physicians and Surgeons, Baltimore, 1886.
John Edson Bowers, George Washington University, 1908.
J. Lester Brooks, George Washington University, 1909.
Fielding H. Garrison, Georgetown University, 1893.

Paul B. Johnson, Georgetown University, 1905.
John J. Madigan, Georgetown University, 1909.
William J. Mallory, George Washington University, 1903.
Harry A. Ong, George Washington University, 1908.
C. Augustus Simpson, George Washington University, 1906.
H. W. Sisco, George Washington University, 1909.
Lewis B. Thomson, Maryland Medical College, 1905.

The Treasurer presented his report for June: Receipts, $35.00; disbursements, $154.34.

Dr. T. C. Smith, Corresponding Secretary, stated that he had been informed by the Secretary of the Law School, George Washington University, that the hall heretofore used by the Society would no longer be available as a meeting place for the Society; Dr. Smith had, therefore, terminated the arrangement, and in view of the situation, he moved that a committee of three be appointed by the President to endeavor to secure accommodation at the Cosmos Club or to make such other provision for a meeting place for the Society as might be desirable. Carried. The Chair appointed Drs. McLaughlin, T. C. Smith and Nichols a committee to arrange for a meeting place.

The Board of Censors submitted a report in compliance with a resolution adopted January 2, 1911, instructing the Board to investigate the origin of a paper which had been circulated and which it was alleged was derogatory to the professional character of Dr. P. S. Roy.

Dr. Roy desired to express for record his dissatisfaction with the report, upon the ground that it failed to include any opinion as to whether the paper in question did or did not attack his professional integrity, which was the only question he desired to have determined.

Dr. D. Olin Leech, Chairman of the Board of Censors, said that the resolution of instruction required the Censors to determine merely the origin of the paper, and did not authorize them to deliver an opinion as to its contents.

Dr. A. Barnes Hooe said that, as the author of the resolution in question, he believed that the Board of Censors had carried the investigation as far as instructed, and he, therefore, moved that the report be accepted. The report was accepted.

Dr. Hooe then moved that "the Board of Censors be directed to investigate the question of whether the headline on the circular sent out by certain members of the Society is "derogatory to the professional reputation of Dr. P. S. Roy, and whether this paper is a public document and whether the statements contained therein are true." Seconded and carried.

The Treasurer was granted the necessary appropriations.

An appropriation of $117.18 for publication of the July number of the ANNALS was made.

Dr. Nichols, for the Committee on Amalgamation with the

Medical Association, moved that the proposed substitute Constitution, as published in the March number of the WASHINGTON MEDICAL ANNALS, and amended by the committee, be adopted. The motion was seconded and carried by unanimous vote.

Great diversity of opinion being expressed as to the status of the Medical Society and of the Medical Association as affected by the adoption of the Constitution, and doubt existing as to the right or propriety of proceeding with the organization of an amalgamated body,

Upon motion of Dr. A. B. Hooe, amended by Dr. Williams, Dr. Barton was directed to notify all members on the rolls of the Medical Society and Medical Association to attend an adjourned meeting to be held Monday, July 10, for the purpose of choosing a name and electing officers for the amalgamated medical body.

The meeting then adjourned to convene as stated.

Joint Meeting, July 10, 1911, of the members of the two bodies formerly known as the Medical Society of the District of Columbia and the Medical Association of the District of Columbia, forming THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA. Dr. W. M. Barton presided; about 40 persons present.

The Chairman announced that the purpose of the meeting was to ratify the action of the component bodies in adopting an identical constitution, to choose a name and to effect the organization of the new body.

Dr. G. Wythe Cook proposed the following:

"WHEREAS, The Medical Association of the District of Columbia and the Medical Society of the District of Columbia in their separate capacities have adopted the same identical constitution, and whereas the 'status' in that constitution declares 'This Society shall be a continuation and amalgamation of the Medical Society of the District of Columbia (founded September 26, 1817, and chartered by Act of Congress of February 16, 1819, and July 7, 1838) and the Medical Association of the District of Columbia (organized January 11, 1833),'

"*Therefore, Resolved*, That at this joint meeting of the two bodies held this 10th day of July, 1911, notice of which meeting has been duly and formally sent in the prescribed way to each member of the respective bodies, the name and title of this amalgamated body shall be the Medical Society of the District of Columbia and all of the members of each of the bodies are, by reason of their membership in the independent bodies, members of this amalgamated body;

"*Resolved*, That the officers of this body, until the election in December, or until their successors are appointed, shall be W. M. Barton, President; Walter A. Wells, 1st Vice President; H. T. A. Lemon, 2d Vice President; H. C. Macatee, Recording Secretary; T. C. Smith, Corresponding Secretary; C. W. Franzoni, Treasurer, and W. C. Woodward, Delegate.

"*Resolved*, That all the assets and all the liabilities of the two bodies are assumed by this body."

On motion of Dr. A. B. Hooe the resolutions were unanimously adopted.

On motion of Dr. Nichols the election of nine members of the Executive Committee, as provided for by the Constitution, was in order.

On motion of Dr. McLaughlin the following, formerly Counselors of the Medical Association, were elected as members of the Executive Committee:

Wm. M. Sprigg,
Louis Mackall,
Llewellyn Eliot,
T. N. McLaughlin,
D. Olin Leech,
N. P. Barnes,
G. Wythe Cook,
H. T. A. Lemon,
G. N. Acker.

The President was instructed to appoint the following committees and to arrange for their organization: Committee of Censors; Committee on Program; Committee on Publication.

On motion of Dr. Nichols the President was authorized to appoint a committee of three to draft necessary by-laws for the government of the Society and a set of model by-laws for the guidance of Sections, with instructions to report to the Society at the November stated meeting.

The Society then adjourned.

WASHINGTON MEDICAL ANNALS.

Journal of the Medical Society of the District of Columbia.

Published Bimonthly by the Society, at No. 2114 Eighteenth Street, N. W., Washington, D. C. Subscription price, including postage, $1.00 per year, in advance. Single copies, 20 cents. Advertising rates given on application.

EDITORIAL COMMITTEE.

D. S. Lamb, A. M., M. D., *Chairman*, . 2114 Eighteenth Street, N. W.
Benj. G. Pool, M. D., . . . 945 Rhode Island Avenue, N. W.
Prentiss Willson, M. D., ... The Toronto.
H. H. Donnally, M. D., A. M., B. S., . . 1612 I Street, N. W.

Editorial.

History of the Medical Society of the District of Columbia. Price, $3.00, delivered in this city or sent by mail. Address Dr. C. W. Franzoni, Treasurer, 605 I Street, N. W.

The Mississippi Valley Medical Association will hold its 37th annual meeting at Nashville, Tenn., Oct. 17 to 19, 1911; H. E. Tully is the secretary. Dr. Frank Hagner is on the program for a paper on "Operative treatment of gonorrheal epididymitis."

The Seventh International Congress Against Tuberculosis will be held at Rome, Sept. 24 to 30, 1911, under the patronage of the King and Queen of Italy. Information in regard to the Congress can be obtained from the Secretary General, Via in Lucina 36, Rome, Italy.

Medical History Club of Washington, D. C.—*Officers:* President, Dr. James Dudley Morgan; Vice President, Dr. G. Wythe Cooke; Secretary and Treasurer, Dr. Truman Abbe; Corresponding Secretary, Dr. Huron V. Lawson; Executive Committee, Drs. D. K. Shute, P. S. Roy, I. S. Stone and the Officers.

The Hippocrates Society, the object of which is "the cultivation and promotion of knowledge in whatever relates to the science of medicine and surgery," holds meetings on the second and fourth Thursdays of each month from October to May. The membership in this Society is limited to 25. The officers for the present season are: President, Dr. Charles S. White; Vice President, Dr. Thomas S. D. Grasty; Secretary-Treasurer, Dr. Laurence M. Hynson.

Society of Ophthalmologists and Otologists of Washington.—President, Dr. W. H. Wilmer; Vice President, Dr. S. B. Muncaster; Secretary-Treasurer, Dr. R. S. Lamb. Meetings every third Friday in the month from October to May.

Galen Society of the District of Columbia.—President, H. W. Kearney, M. D.; Secretary-Treasurer, C. C. Ammerman, M. D. October 9. Business meeting; at Dr. Kearney's, 1221 O Street, N. W. November 13. Business and Case Reports.

The Secretaries of the other Medical Societies of this District are reminded that the Annals will publish the schedules of their meetings for the coming season.

A New Journal has appeared in this city, the *Journal of the Washington Academy of Sciences*, edited by Messrs. G. K. Burgess, B. W. Evermann and F. L. Ransome; a semi-monthly. It will take the place of the present Proceedings of the Washington Academy of Sciences. For further information address the editors, or Dr. A. L. Day, Treasurer, at the Geophysical Laboratory.

A New State Journal, the *Journal of the Iowa State Medical Society* has appeared.

Dr. Chas. F. Stokes, Surgeon General of the Navy, according to the U. S. Naval Bulletin, has been given the degree of LL. D. by Jefferson College, Philadelphia, and Sc. D. by Columbia University, N. Y. City.

Dr. Walter Wyman, Surgeon General P. H. and M. H. S., has been elected President of the American Medical Editors' Association. He has been given also the degree of Doctor of Laws by Amherst; he was a member of the Class of 1870.

Major W. V. Judson, U. S. A., one of the Commissioners of the District, has had conferred on him, by Harvard University, the degree of Master of Arts.

Dr. S. S. Adams was reëlected Secretary of the American Pediatric Society at the meeting at Lake Mohonk, N. Y.

Dr. G. Frank Lydston, of Chicago, in a letter to the *Journal A. M. A.* (see July 8, page 130), states that his name had been used without his knowledge or authority as endorsing a book called "Large fees and how to get them." He asks that his disclaimer be generally made known.

Anterior poliomyelitis in the District of Columbia.—The reprint of the published report of the committee has an editorial notice in the *Lancet*, London, July 8, page 108. It concludes as follows: "This report affords some interesting information concerning some of the features of this serious disease, and is a useful contribution to the study of its special characters in the epidemic form."

In a table published in the *Journal A. M. A.*, July 1, 1911, page 58, it is stated that the number of physicians in this District who are members of the Medical Association is 550. In contrast with this it is interesting to note that in Arizona the Medical Association has only 157; the Delaware Association, only 103; Florida, 341; Idaho, 124; Montana, 234; Nevada, 89; New Hampshire, 540; New Mexico, 246; North Dakota, 400; Oregon, 445; Rhode Island, 357; South Dakota, 265; Utah, 195; Vermont, 410, and Wyoming, 122; all of them less than in this District.

Review.

Handbook of Suggestive Therapeutics, Applied Hypnotism and Psychic Science. By Henry S. Munro, M. D., Omaha, Nebraska. Third edition, revised and enlarged. St. Louis, C. V. Mosby Company, 1911. Price, $4.00.—Perhaps the least unsound of the many books in English on psychotherapy, this work is valuable because it supplies to men of poor therapeutic education much which should be the common sense of every physician. It does not pretend to be a treatise for neurologists and is prolix and unsystematic. It contains some statements which excite hostility rather than assent. For example, that direct suggestion can promote *local* trophic functions or prevent sepsis, is a claim which only harms psychological medicine in

the estimation of the critical. Again, although Dr. Munro attempts a scientific discussion of Freud's psycho-analysis, he confesses to a strong "religious complex," which appears to be a motive for his rejection of Freud's belief that disordered sexuality comprises the etiology of those nervous disorders without anatomical basis. This somewhat weakens his wise animadversion upon the self-constituted authoritativeness of certain psychoanalysists, whose assumptions antagonize many critical physicians, so that they fail to avail themselves of an important therapeutic arm. This book, in spite of its shortcomings, will help to still the polemical passion which so blurs this question.

The word suggestion has been used by Dr. Munro in the wide sense, adopted by Bernheim, as any and every introduction of an idea into the mind of another. This is unfortunate, in view of its restrictions by the majority of psychologists. But it greatly enlarges the scope of the book, so that it comprises all psychotherapy. Hypnotism is given no special validity; it is only an attitude of acquiescence to suggestion.

Jung's association test is favorably spoken of. Rational persuasion is discussed at length. The education of the sexual instincts is well presented. The relation of philosophy and religion to health is discussed; and chapters are devoted to conservation of energy, the therapeutic influence of environment, moral stamina and roughing it as a means of health. The use of the term subconscious-self may be objected to, as also may the doctrine of reserve energy, upon which are based some of the practices advocated in the book. But the imperfections of Dr. Munro's presentation are far outweighed by the number of sensible discussions and valuable illustrations which will arm the practitioner with facts and arguments useful not only in his practice, but for the refutation of the specious vaporings of the medically-wise layman whose perniciousness is allowed rampancy largely on account of the members of our profession not being sufficiently acquainted with such matter as is presented in this book.

T. A. Williams.

The District of Columbia and the Recent Meeting at Los Angeles, of the American Medical Association.—The following persons registered from the District: In the Surgical Section, Harry L. Brown and James F. Mitchell; Obstetrics and Diseases of Women, H. L. E. Johnson; Practice of Medicine, Franz A. R. Jung; Preventive Medicine and Public Health, John S. Fulton, J. W. Kerr, W. C. Woodward; Laryngology and Otology, J. H. Bryan; Diseases of Children, G. N. Acker; Pharmacology and Therapeutics, Reid Hunt; besides officers of the army.

The following papers were read by or for Washington men:

James F. Mitchell, "Sensibility of the peritoneum and abdominal viscera."

J. H. Bryan, "Operative treatment of suppurative sinus disease producing orbital complications." Published in *Journal A. M. A.*, Aug. 19, p. 624.

Reid Hunt, "Experiments on the relation of the thyroid to diet."

W. H. Schultz, "Relative efficiency as compared to thymol, of certain proposed remedies for hookworm disease."

Worth Hale, "The effect of the digestive secretions on the activity of digitalis and allied drugs."

R. P. Smith, "Multiple neuritis with paralysis of the hypoglossal nerve."

G. M. Kober, "Control of venereal disease by a municipality."

W. C. Woodward, "Methods for controlling diphtheria."

L. L. Lumsden and W. C. Rucker, "Typhoid fever."

Dr. Abraham Jacobi, of New York City, was elected President of the Association.

Dr. H. L. E. Johnson was appointed by President Murphy one of a committee to bear greetings of the A. M. A. to the National Educational Association, meeting in San Francisco.

Dr. Woodward offered a resolution, which was adopted, as follows: *Resolved*, That the American Medical Association expresses its approval of legislation looking toward the bettering of the compensation of officers in the United States Public Health and Marine Hospital Service, and urges its enactment in its present form by the House of Representatives of the bill just enacted by the Senate to accomplish this end.

Dr. Rosalie Slaughter Morton, not long since a member of this Society and now resident in New York City, where she is practicing, is the chairman of the Public Education Committee of the A. M. A. Her report for the last year's work appeared in the *Journal A. M. A.*, July 1, page 66.

Dr. Woodward is a member of the Council on Health and Public Instruction of the A. M. A. The report of the council appeared in the same journal, page 52, *et seq.*

Dr. Wilmer is a member of the Committee on Visual Standards for Pilots. The report of the committee appeared in the same journal, page 70.

Recent Publications by Physicians of this District.

T. A. Williams, "Nervous symptoms of arteriosclerosis and the removal of the state causing them;" *Denver Medical Times*, May.

W. A. Brown, "Mortality from venereal diseases;" *N. Y. Med. Jour.*, June 10.

L. Kolipinski, "On the uses of nickel sulphate in medicine;" *Monthly Cyclop. and Med. Bull.*, June, page 348; abstracted in *Jour. Amer. Med. Asso.*, July, 22, page 337.

T. A. Williams, "Freud's ideas on psychoneurosis;" *West Va. Med. Jour.*, July, page 16.

O. A. M. McKimmie, "Tracheotomy; report of cases;" *Virginia Med. Semi-Monthly*, July 7, page 162.

W. W. Potter, formerly member of this Society, "Three years with the Army of the Potomac; a personal military history;" *Buffalo Med. Jour.*, July, page 647.

Clarence A. Smith, formerly a member of this Society, "Tuberculous enteritis; perforation of tuberculous ulcer;" *Northwest Medicine*, July, page 187.

J. Dunlop, "On lesions of the sacro-iliac synchondrosis;" in *Virginia Med. Semi-Monthly*, May 26.

M. Solomon; Pronounced case of splenomyelogenous leukemia, with autopsy;" in *Medical Record*, New York, June 17.

W. C. Woodward, "The American Medical Association and its relations to public health work;" *Jour. Amer. Public Health Assn.*, May.

R. A. Gortner, "New decomposition product of keratin which gives Mellon's reaction;" *Jour. Biol. Chem.*, June.

T. A. Williams, "The psychic treatment of morbid anxiety;" *Amer. Jour. Physiolog. Ther.*, July, page 81.

R. W. Shufeldt, "Hygiene of women as illustrated in the case of the model;" *N. E. Med. Mo.*, July, page 239.

L. Eliot, "Anesthesia in rectal surgery;" *Va. Med. Semi-Monthly*, July 21, page 190.

"Proceedings of the Med. and Surg. Society, D. C.;" *Va. Med. Semi-Monthly*, July 21, page 199.

H. W. Wiley, "Bromotherapy;" *Mo. Cyclop. and Med. Bull.*, July, page 385.

T. A. Williams, "Pen palsy and other occupation cramp neuroses;" *Mo. Cyclop. and Med. Bull.*, July, page 418.

Walter McCaw, "A comparison of some diseases transmitted by blood-sucking insects;" *Old Dominion Jour. Med. and Surg.*, July, page 1.

J. W. Bovée, "Investigation of the use of iodine in skin sterilization for surgical purposes;" *Amer. Jour. Obstet.*, July; abstracted in *Jour. A. M. A.*, July, page 423.

H. D. Fry, "Best and worst methods of treating placenta previa;" *Amer. Jour. Obstet.*, July.

G. T. Vaughan, "Transplantation of the left knee joint;" *Surgery, Gynec. and Obstet.*, Chicago, July; abstracted in *Jour. A. M. A.*, August 5, page 512.

C. F. Craig, "Prophylaxis or malarial infection;" *Southern Med. Jour.*, July.

C. W. Stiles, "Is the so-called cotton-mill anemia of the Gulf Atlantic States due to lint or uncinaria?" *Southern Med. Jour.*, July; abstracted in *Jour. A. M. A.*, August 5, page 507.

G. T. Vaughan, "Perforating ulcer of duodenum, death from pulmonary thrombus;" *Amer. Jour. Med. Sci.*, July.

P. S. Roy, "Diet, a plea for accurate food therapy;" *Va. Med. Semi-Mo.*, August 11, page 210.

P. S. Roy, "Relation of thyroid to menstruation;" *Wash. Med. Annals*, May, 1911; abstracted in *Denver Med. Times*, August, page 54.

T. A. Williams, "Nervous disorders and the neurologist in relation to the profession and public;" *Med. Record*, N. Y., July 22.

W. Gerry Morgan, "Cardiospasm in infancy;" *Med. Record*, N. Y., July 22; abstracted in *Jour. A. M. A.*, May 27, page 1607.

W. M. Barton, "Fetishes in medicine;" reviewed in the *Literary Digest*, August 19.

C. F. Stokes, "Aims in medicine;" *Jour. A. M. A.*, August 19, page 609.

The papers of H. H. Hazen, "Cutaneous lesions, associated with leukemias," and D. K. Shute, "Influence of pregnancy on diseases of the eye," published in the July ANNALS, are abstracted in the *Jour. A. M. A.*, August 19, page 686.

BOOKS AND PAMPHLETS RECEIVED.

V. G. Heiser, "A note on smallpox in the Philippine Islands;" also, P. Villoldo, "Smallpox and vaccination in Cuba;" also, J. W. Trask, "Smallpox in the United States;" reprints from Public Health Reports, Nos. 60 and 61, 1911.

G. C. Mizell, "Preliminary report; etiology, pathology and treatment of pellagra; a new theory; a specific cause;" reprint.

L. F. Bishop, "Review of methods of examination in heart and bloodvessel diseases, with special reference to the discovery of therapeutic indications;" reprint.

"Report of the Department of Sanitation of the Isthmian Canal Commission, for May, 1911."

Naval Medical Bulletin.

J. F. Anderson and J. Goldberger, "Experimental measles in the monkey;" reprint from Public Health Reports, No. 62.

J. W. Bovée, "Investigation of the use of iodine in skin sterilization for surgical purposes;" reprint.

T. A. Williams, "Neoplasms within the skull; early diagnosis and treatment;" also, "Nervous disorders and the neurologist in relation to the profession and the public;" reprints.

Vol.. X. NOVEMBER, 1911. No. 5.

WASHINGTON MEDICAL ANNALS

REVIEW IN SURGERY.*

By W. P. Carr, M. D.,

Washington, D. C.

The past year has been one of great activity in both operative and experimental surgery, and especially in the study of surgical pathology and the adaptation of its teachings to practical purposes.

When we consider the great number of men of the highest attainments and ability, who are working in this field, and consider the immense clinics and numerous splendid laboratories that have been placed at their disposal during the past few years, as never before, and consider the modern advantages of medical journals and medical congresses in informing each one of the thought and work of others, it would seem that many of the great problems should be solved without delay. That this is not so is evidence of the tremendous difficulties and complexities that arise when a living animal body is to be studied.

When we remember that the presence or absence in the blood of toxins, in quantities too small for detection by the most delicate chemical analysis, may be a determining factor of life or death, that elusive infinitesimal substances in the serum prevent or promote the growth of cancer, that ordinarily harmless bismuth paste may become a fatal poison through the action of ordinarily harmless bacteria in the intestinal canal, that even a wholesome fresh hen's egg is a violent poison to a few individuals, and a host of similar facts that have come to light, it seems, on the other hand, wonderful that so much has been discovered.

During the past year so many new theories and new practices have come into use, and so many older ones have been modified, so many new instruments and devices and methods have been presented for better or for worse, and so many older ones confirmed, modified or abandoned, that to cover the whole ground even superficially would take an immense volume. In a paper like this one can only touch the more important topics in a very

*Read before the Medical Society, May 24, 1911.

general way, and my object shall be to give the consensus of opinion, as I interpret it, rather than attempt any detailed description or argument. And I shall divide the subject into a comparatively few broad heads.

I. *Anesthetics.*—The first question confronting the operator is the choice between local or general anesthesia, or a combination of both. For most minor operations, except in children, local anesthesia is now generally preferred, and for major operations it is undoubtedly growing in favor, alone or combined with morphia and atropia, or morphia and scopolamin. The injection of $\frac{1}{6}$ to $\frac{1}{4}$ gr. of morphia, with atropin or scopolamin $\frac{1}{100}$ gr. or $\frac{1}{150}$ gr., an hour or so before operating has become a very general practice, whether local or general anesthesia is to be used, and is to be highly commended. It overcomes or diminishes both physical and psychic shock, and adds greatly to the comfort of the patient.

Collins[1] has used it as a preparation for general anesthesia in 1,120 cases, and recommends highly the following method: All preliminary shaving and scrubbing having been done, the patient is given $\frac{1}{6}$ gr. of morphia, with $\frac{1}{100}$ gr. scopolamin, $1\frac{1}{2}$ hours before being carried to the operating room, and is left for that time in a quiet, darkened room, with no visitors. The patient usually falls into a tranquil slumber, and is not under any circumstances to be roused. The transition from a partial sleep to complete anesthesia is not so sudden and is easily accomplished.

The patient, however, may be placed upon the operating table and necessary cleansing and preparing done while the anesthetic is given. The patient usually sleeps three to five hours after the operation, and is saved pain and vomiting and the excessive secretion of mucus. This method of preparation has widened the legitimate field for local anesthesia by lessening both nervousness and shock, which are its chief contra-indications.

In general it may be said that the contra-indications for local anesthesia are: 1. Age. Children under eight. 2. Excessive nervousness or excitability. 3. Operations involving the separation of adhesions or any considerable pulling or handling of viscera. 4. Operations of very extensive area. It is indicated in all cases where there are no contra-indications.

Numerous local anesthetics are still in use. Alypin, eucaine, stovaine, novocaine, quinine-urea hydrochlorid and weak solutions of cocaine are probably most used. Personally I have had the best results with alypin, and have seen no bad effects from even a very free use of it. Quinine-urea has not been effective in my hands, though possibly I did not wait long enough, as it is said to take two hours to attain its full effect. Some claim great advantage from adrenal-chlorid in combination with local anesthetics. Others have abandoned it as useless.

Many new methods and combinations of methods for general

anesthesia have been tried during the year, and several ingenious inhalers have been devised. Both ether and chloroform have been used in 3 to 7 per cent. solution by intravenous injection, and are still being tried by some Italian surgeons. Thrombosis has resulted in several cases at the point of injection and in remote places, and at least one death resulted from this cause.

Rectal anesthesia has not proved satisfactory.

The use of spinal anesthesia has declined, though still warmly advocated by Jonnesco and a few others. Twelve deaths in 2,400 cases were reported by Hohmier.[2]

The use of nitrous oxid has increased, both as the sole anesthetic and as a preliminary to chloroform or ether. Chloroform has been generally abandoned for ether, on account of the increased recognition of greater safety in the latter. Some credit should be given to members of this Society, notably Drs. Lowe and Chipman, for showing the relative safety of ether, and to several others for demonstrating its skillful administration. I refer to those who have made a specialty of giving anesthetics and who have so much improved the methods of giving them in our local hospitals. At present ether given by trained men is used in most major operations and is, all things considered, probably as safe as and more satisfactory than any other known anesthetic.

There is always the danger of slower and more incomplete and imperfect work, and consequently of greater shock, with local anesthesia, and a slightly greater liability to necrosis or infection following the infiltration of tissues.

J. B. Murphy says: "Ether is rapidly displacing all other means for general anesthesia. Its administration is facilitated by first using nitrous oxid. The 'drop method' has superseded all others."

II. *Wounds and Technique.*—The treatment of wounds, particularly of lacerated or contused wounds, and compound fractures has been radically modified. Scrubbing with soap and water has been abandoned as a fruitful source of infection. The skin around the wound is now generally cleansed with benzin, carefully, up to the edges of the wound, dried, and painted with 3½ to 5 per cent. tincture of iodine. The wound itself is then saturated with the tr. iodin. This method of preparing the skin for operations has also been rapidly growing in favor.

The greatly increased liability to infection in contused and lacerated wounds has been recognized, particularly the danger of tetanus, and the prophylactic use of antitetanic serum or powder has been strongly advocated in all such cases and is growing in favor. The paper of Dr. LaGarde read before this Society a short time ago was important in showing the great danger of infection in gunshot wounds due to necrotic tissue and clots in the track of the bullet.

There has been a fuller appreciation of the fact that clean-cut wounds heal rapidly and readily, and that even extensive dissections cause no pain or trouble and leave no trace after a few days, provided we leave no mangled tissues and do not obstruct circulation with ligatures *en masse* and tight suturing.

Murphy, in the Chicago Year Book for 1911, says: "Today we know that the injury done by the knife is limited to the track itself, and that it will be repaired with a rapidity so great that after a very few hours the most extensive dissections have left no trace."

"The surgeon of today must avoid cutting or bruising structures essential to life. There are tracts in the brain and cord which he must not divide; there are a few great vessels which he must not tie or cut. But with these reservations he finds no barrier to his work."

This is rather optimistic in the face of facts; but a little later he says: "When we speak of our triumphs and our hopes let us not forget our perils and our pitfalls, and let us pause for a moment to ask ourselves what may be the greatest dangers of modern surgery. In the first place we have, perhaps, a tendency to operate too readily, and without due care for preliminary diagnosis. Haphazard explorations undertaken because 'something must be done' are a moral crime from which we are, perhaps, not altogether exempt. The very safety of surgery tends to diminish the sense of responsibility with which such operations are undertaken. The fact that in so many cases an operation is performed with ultimate recovery may also make us lose sight of the fact that recovery might have occurred without the operation and that the latter in itself is not a good and desirable thing even in this twentieth century.

"A closely allied danger is extreme specialism, which is another term for limitation of thought.

"Our bodies are not made like our ships, in watertight compartments. We cannot derange one organ or function without also injuring others. * * *

"Is there not reason to fear that there are today some exceedingly brilliant surgeons whose reputation for, *e. g.*, amputating the little finger is somewhat shadowed by the suspicion that they may amputate that digit when it was hardly worthy of such honor? * * *

"After all, the greatest surgeon is the greatest healer, and not necessarily nor invariably the most dexterous operator. And we may humble our pride in our art a little when we consider that it is, after all, an imperfect means toward one great end—the extinction of disease."

I think myself that we sometimes forget that our prime object is to put the patient in as nearly normal condition as possible and with the least risk and least discomfort to him.

Dr. Murphy, in his optimistic eloquence, might make us think that the danger of operating is a thing of the past, and so it would be *if we had only sound patients to deal with.* But unfortunately many of the most *necessary* operations are upon persons having nephritis, atheroma, gastro-intestinal disorders, or other conditions that bring the powers of resistance, both to shock and infection, to a very low ebb. And in many other instances infection, or a potent internal source of infection, is present before the operation is begun.

Until these conditions can be improved there will continue to be deaths following operations, due to unpreventable infection or previous infection, or to inability on the part of the patient to withstand the necessary and unpreventable shock.

Much has been done recently, and even during the past year, to eliminate preventable shock. The chief factors in doing this have been: (1) Better diagnosis, not only of the disease to be operated upon but of the patient's whole condition. (2) The planning of such an operation as the patient can stand. (3) Saving of time under the anesthetic by giving it on the table while final preparations are being made. (4) Preliminary hypodermatic injection of morphia with atropia or scopolamin. (5) Quicker, and especially cleaner, operating—partly the result of carefully planned work for each case. There is still room for improvement in more careful observance of these details.

One of the most interesting and practically important contributions to surgery is the work of George W. Crile, of Cleveland, showing that shock is a demonstrable physical condition of the brain cells, in which there is a shrinking of the nucleus and dissipation of Nissl's granules. He also shows the various ways in which this condition may be produced experimentally; chiefly by fright, pain or prolonged handling of viscera. Ether anesthesia does not prevent shock. Nitrous oxide does to a limited extent.

Crile has advanced a very pretty theory that the causes of shock are efforts of the individual to protect itself from noxious influences, *involuntarily*, under the influence of hereditary automatism, and has devised a practical plan for abolishing this involuntary struggle against the *noci-associations* of an operation that has given excellent results and is of very great practical value.

Brunner[5] furnished a report to the German Surgical Congress upon methods of wound treatment, based upon inquiries made of 127 prominent surgeons. Furbringer's method of disinfecting the hands was most used. About half the operators used gloves on principle. Some used them for certain operations and for precise indications. A third class, the "prophylacticians," wear gloves in the interval between operations. One-third wear masks. Seven do not use catgut. Thirteen surgeons apply only aseptic dressings to accidental wounds. All the rest use antiseptics,

regularly or occasionally. For disinfecting the wound and vicinity iodin is preferred.

III. *New Methods and Instruments.*—To hold a bandage on a conical limb it is recommended that strips of adhesive plaster be first applied up and down the part to be bandaged, at equal distances, and that these strips be doubled lengthwise so that the sticky surface is turned next the skin and also out toward the bandage. This seems a good and effective method.

Rafia has been recommended for drainage of wounds. Rafia is a basket-maker's material, coming in round cords that, when wet, unroll into soft, pliable, strong ribbons not injured by boiling. Granulations do not grow into it as they do into gauze, so that its removal is easy. In capillarity it is slightly inferior to gauze.

Chamois skin is highly recommended as a preventive of bedsores. The soft side is placed next the skin and held neatly in place by adhesive strips. It may be washed and used over and over.

Bismuth and gelatin have been used to distend esophageal diverticula for x-ray photography with satisfactory results.

Swallowing a long string over which an esophageal bougie could be threaded and guided has facilitated the dilatation of strictures in some cases.

The "nail extension" method of treating fractures of the femur[6], devised by Codovilla, has been modified by Becker and Stineman and is now a practical and effective way of treating such fractures.

Human hair is recommended as the best suture for use on blood vessels.

The writer has had prepared recently some whale-tendon sutures which he offers for your inspection. These sutures were prepared by Davis and Geck, of New York, from a bundle of whale tendon given him by Dr. D. W. Prentiss. They are not as good as kangaroo tendon, but if that supply ever runs short they might make a fair substitute, and should be cheap, as the amount of tendon in a whale is immense.

Among new instruments we find several needle holders, as usual, Jenness' dissecting scissors and a blunt-pointed scalpel. Cressy[7] shows pretty conclusively that the scalpel needs no point, and is better without it, at least in most operations.

A ligating forceps, devised by J. B. Murphy, will probably prove very useful in deep wounds and cavities. Ligatures may be placed in position on the forceps before the operation.

A simple, convenient aspirator, without piston, is described by Thevenet in the *Lyon Medical*, July 24, 1910.

Viscera forceps, with open rings covered with rubber tubing, are described by Schoenberg[8]. They will undoubtedly prove very useful.

Roberts[9] has invented a new rectal speculum of glass, with a mirror inside it for directing and reflecting light, and a small opening in the side which can be brought over any spot it is desired to probe or treat. It looks as if it would give an excellent view of the whole rectum.

A costal periosteotome, several inhalers, a blood aspirator for mouth operations and a scalp tourniquet[10] are a few more of the more notable new instruments.

Willy Myer[18] describes a new operating table for thoracic surgery, and a successful operation of esophago-plication[19] for impermeable cardiospasm which was facilitated by this table and by a differential pressure chamber.

The use of a high-tension, unipolar current, the Oudan current, applied by an electrode through the cystoscope, has been found useful in removing certain growths from the bladder. Dr. F. R. Hagner has used it very successfully in the removal of papilloma of the bladder and also in the treatment of cancer of that viscus.

IV. *New Operations and Modifications.*—A. M. Fauntleroy[11] describes a simple, effective method of blood transfusion that may be easily done by the average surgeon under local anesthesia. It is done by a vein-to-vein anastomosis through a well-oiled, curved glass tube with ends suitable for tying, into the veins.

Handley[12], in his Hunterian lectures, describes a new operation, which he calls "Lymphangioplasty," for the relief of localized edema, chiefly the edema of the arm following cancer of the breast. The operation consists of running long threads of tubular woven silk in the subcutaneous tissue of the arm and leading them into the subcutaneous tissue of the back, where they spread out in a fan-like manner. Relief of swelling and pain has quickly followed.

Balfour[13] describes a simplified method of rectal and sigmoid anastomosis by means of a tube passed up through the anus.

Improvements have been made in nerve and tendon suturing, and the bad results following the cutting or crushing off of nerves with bone forceps, particularly in finger amputations, have been pointed out.

H. C. Jacobaeus[16] has used a small Nitze cystoscope through the canula of a trocar to examine the pleural and abdominal cavities, and has been able to discover cancer nodules on the liver and on the bowel, and to study intestinal motion. He was unable to see any actual lesions in the pleural cavity, but hopes for greater success with more experience.

Cardiolysis, or freeing the heart from pericardial adhesions, has been successfully done. Lecene[17] has collected twenty cases with no mortality. This is an entirely different operation from the cardiac decortication proposed by Delorme.

A new operation for removal of tumors from the fundus of the

bladder is described in the *Annals of Surgery* for November, 1910, by Dr. F. R. Hagner, of this city. In Hagner's operation the cystoscope was used in the bladder during the operation to aid in marking the outlines of the growth on the outside of the bladder before opening it. In this way he was enabled to remove the tumor without cutting, tearing or bruising it in the slightest degree, and this is unquestionably a step in advance in cancer surgery.

V. *Surgical Pathology and Therapeutics.*—It has been pretty clearly shown that there is no such thing as idiopathic arthritis any more than there is idiopathic peritonitis. There is always an extraneous source of infection in each case that can usually be found and should be carefully looked for.

The *status lymphaticus* has received considerable attention. Some writers have gone so far as to claim that every death from anesthesia is due to this cause, and that every child having stridulous breathing should have its thymus gland removed. Status lymphaticus and hypertrophy of the thymus are certainly connected, and sudden death has occurred from hyperthymism without warning. In the vast majority of cases, however, there has been permanent dyspnea, suffocative crises and stridor for some time preceding death. Seventeen cases have been operated upon, with fifteen brilliant, immediate cures, one cured in eight days and one death from too late operation. Lenormant[14] says: "I only call attention to a very important fact, that we should never have recourse to general anesthesia in individuals with enlarged thymus." Nevertheless, all these cases were operated on under chloroform, except the case of Heinrichs, and no trouble was experienced. The operation is easily performed, and total removal of the gland has so far produced no bad results, though its removal in very young animals produces grave symptoms.

It may be said that during the past year much has been learned about the thymus and a foundation laid for further knowledge of this interesting organ. It is interesting to note that removal of the thymus in young animals produces osteomalacia, and that years ago it was discovered accidentally that removal of the ovaries often cured osteomalacia in women. Now it is definitely shown in the polyclinic at Rome[15] that it is the giving of chloroform, and not the removal of ovaries, which produces this result; and cases of osteomalacia are being cured by chloroform anesthesia for thirty to forty-five minutes, one administration usually sufficing.

The report of W. J. Mayo[15], in the *Northwestern Lancet*, September 15, 1910, of the cancer experiments of Fischera is extremely interesting. Fischera, believing the cancer cell to be an embryonic cell, applied the autolytic action of such cells in the following way. He took human embryos from the second to the sixth month, ground them up and macerated them in normal

salt solution until they were dissolved by autolysis. This fluid was injected into cancer patients. Five patients have been cured. Mayo saw the following three.

Case 1. Carcinoma of the tonsil, cheek and pharynx, with extensive glandular involvement. Examined by Alessandri. Piece removed for microscopic examination. Considered inoperable and turned over to Fischera. After a number of injections this case was completely cured.

Case 2. Cancer of rectum operated on by Alessandri. Return *in loco*. Microscopic examination; condition pronounced hopeless. This patient was completely cured by the injections.

Case 3. Huge carcinoma of breast; axillary and subclavian glands enormously enlarged; arm swollen. Considered inoperable. After a number of injections the glands completely disappeared, the arm became normal in size and the tumor was reduced to one-fourth its previous size. Mayo, while not convinced that a cure for cancer has been found, is much impressed and thinks Fischera's reasoning is philosophic and a distinct step in advance.

At the Second International Conference on Cancer (Paris) it was proposed to abolish the term carcinoma because of its varying meaning in different countries, and to call all malignant growths cancer, epithelial cancer, sarcomatous cancer, etc. This classification was accepted provisionally; but finally, owing chiefly to German opposition, was referred to a committee to report at Brussels in 1913. There is evidently a growing belief in trauma as an exciting cause.

Menetrier says that the question whether cancer can develop in healthy tissue or whether some previous perturbation is necessary can only be answered by observation, and that "in all organs in which it is easy to study the preliminary stages of cancer we find always, in the center or in the vicinity of the young primary cancer nodule, the traces of this perturbation."

Hausemann (Berlin) thinks that it is high time to drop the term *embryonic* as applied to the cells of malignant tumors. The embryonic cell has for its chief characteristic ability to differentiate into various forms of tissue, while the cancer cell is in the way of involution, tending more and more to lose its power of differentiation. It is an anaplastic cell.

Many things of interest have been omitted for want of space, but I cannot close without a reference to the new surgical society —the Washington Surgical Society—which has recently been born in this city. It was a real need, has started out well and, we hope, will become a valuable institution, not only to its members but to the profession generally. Not many members of the medical profession in Washington have had the time and opportunity for extensive original work, and it is not often given to one to discover or hit upon any one thing of great or startling value in

the routine practice of medicine or surgery. But we have, nevertheless, in our own Medical Society many keen observers of an enthusiastic and scientific bent who have done no little toward the molding and crystalizing of surgical methods and practices, through excellent papers and discussions, giving their varied experiences and accurate observations and deductions founded upon practical work of great extent. Their influence has been felt, both at home and abroad, and there is abundant evidence of this fact in the current medical literature of the past year.

Bibliography.

1. *Jour. A. M. A.*, March 26, 1910.
2. *Semaine Medicale*, April 13, 1910.
3, 4. *Chicago Year Book*, Vol. II, 1911, p. 3.
5. *Semaine Medicale*, April 15, 1910.
6. *Chicago Year Book*, Vol. II, 1911, p. 208.
7. *Brit. Med. Jour.*, 1910, Vol. I, p. 1107.
8. *Surgery, Gyn. and Obstet.*, Nov., 1910.
9. *Jour. A. M. A.*, Jan. 8, 1910.
10. *Annals of Surgery*, May, 1910.
11. *Med. Record*, Sept. 3, 1910.
12. *Brit. Med. Jour.*, April 16, 1910.
13. *Lancet*, London, Feb. 5, 1910.
14. *Chicago Year Book*, Vol. II, 1910, p. 305.
15. Mayo, *Northwestern Lancet*, Sept. 15, 1910.
16. *Münch. Med. Woch.*, Oct. 4, 1910.
17. *Chicago Year Book*, Vol. II, p. 315.
18. *Ann. Surg.*, July, 1910, p. 40.
19. *Jour. A. M. A.*, May 20, 1911, p. 1437.
20. *Presse Medicale*, Oct. 5, 12, 22, 29, 1910.

Dr. Reichelderfer had enjoyed the paper and had especially appreciated the remarks upon the subject of anesthetics; this is a vital topic in surgery and has received much attention in the past year. The combination of nitrous oxid and oxygen has only recently been used for narcosis in operations of any considerable duration or magnitude. It has been used here successfully and to a considerable extent. It is especially indicated in cases requiring quick operation and quick recovery. He himself had found it an excellent agent and had seen no accident from it. It is particularly desirable in operations for empyema and for amputations. It should be administered only by trained men, but such men are now easily obtainable.

Dr. Hagner had been interested in the paper and also in Dr. Reichelderfer's remarks. He had used the nitrous-oxid-oxygen anesthesia in several cases; in one case of a minor operation he had been frightened by the patient's suffering an attack of apnea, but this proved to be simply a reflex condition such as is so frequently seen in ether anesthesia. In all the other cases in which he had used the combination the results had been good.

He was also interested in the remarks upon the use of the

cystoscope in examinations of the pleural and abdominal cavities. It seemed to him that the Nitze cystoscope would not be good for this purpose, as it can be used only in a hollow cavity ; in the pleural and abdominal cavities, where the visceral surfaces lie in contact, a new form of cystoscope which is used for the examination of the posterior urethra may be used to advantage. It seemed to him there might be considerable possibilities in the use of this instrument. As to the Oudan current he could give no technical explanation as to its qualities, except that it is a monopolar current from a high-tension coil. It is used in intravesical work simply by introducing an insulated wire through a cystoscope. He had found the best results from it to be obtained in the treatment of papilloma of the bladder ; it is simple and easy to use and is not painful to the patient. The current seems to affect the tissues in much the same way that x-rays do. He had used it on one case of cancer of the bladder, making four applications ; there had been marked diminution of the intravesical growth and great improvement of symptoms ; infiltration around the bladder remains, however, and the end results will, of course, be bad.

Dr. Jack said that the possibilities of operative treatment of tumors of the bladder have been greatly extended of late. Rochester has shown that it is possible to extirpate almost the entire viscus by his transperitoneal method and that the operation is a practical one. The possibilities of bladder surgery, with the transplantation of the ureters, have been developed greatly by the gynecologists, who are especially apt to inflict operative wounds on the bladder or to find disease conditions involving this portion of the urinary tract.

DIFFERENTIAL DIAGNOSIS BETWEEN OCULAR AND ACCESSORY SINUS HEADACHE.*

By Carl Henning, M. D.,

Washington, D. C.

It is my wish to put before you the differential diagnosis, which is ofttimes so confusing, between headaches due to ocular causes and those of nasal accessory sinus origin. Each type is very common and may present great difficulty in diagnosing. One patient will complain of inability to use his eyes for reading, say for the past two weeks, without severe headache ; another states that he has an intense headache in the morning on awakening, cannot bear the light, the ache wears off by noon ; a third has neuralgia over one eye. Are these headaches ocular, sinus, or what?

* Read before the Medical Society, October 18, 1911.

It is usual to consider an ache in the head as dependent upon a disordered condition of some other part of the body, to treat this other part first, and then, failing of cure, to examine the head itself. Probably this method of practice is correct in the majority of cases, but there are many instances in which we can diagnose a headache as due to the head itself and save the time which would be lost in elimination of the remainder of the body.

I will ask your indulgence for a brief epitome of the symptoms and their pathology of the aches found in eye strain and in sinusitis, and then will point out the differentially diagnostic points, with reasons.

First, a brief explanation of the pathology of aches from an *uninflamed* eye :

These are due entirely to muscular cramp and its sequelae. For a minute let us turn to these rough diagrams. Here is the normal eyeball, with a lens of proper focal distance to focus sharply on the retina. In the second figure is represented a shortened eyeball, the condition present in farsight, in which the rays are focused behind the retina, making, of course a blurred image upon the retina.

The ciliary muscle, as shown in this diagram viewed from the front, is essentially a ring holding the lens suspended in its center. A contraction of this ring muscle means a lessening of its diameter, and a suspended elastic body such as is the lens will bulge.

In farsight or astigmatism, though the patient see perfectly, yet this perfect vision is accomplished by a spasm of the ciliary muscle, allowing the lens to bulge and become of higher power with a shorter focal distance, this shorter focal distance being necessary to obtain a sharp image in the shortened eyeball. This cramp is maintained throughout all the waking hours and probably the sleeping as well. Nearly everyone has farsight or astigmatism to some degree ; in the majority of cases there are no subjective symptoms of this condition, the patient is comfortable and sees perfectly.

But if the patient be advanced in years, weakened by an illness, *e. g.*, measles or an operation, or if the error in refraction be of high degree, the ciliary muscle may refuse to contract sufficiently to get perfect vision ; or it may contract one minute, giving sight, and through weakness relax the next, with blur.

So much for distance. In reading, this same ciliary muscle focuses by further contracting. The patient may feel no discomfort from the constant contraction of this muscle for distance, until he adds to it a further contraction needful to focus on his book. After a variable period of reading an ache may be felt, in one or both eyes, or over them, or at the back of the head, and perhaps a drawn feeling. As the ciliary muscle weakens in its attempt to focus, and extraordinary nervous impulses are sent to

it, these nervous impulses are distributed also to the accessory muscles of accommodation, the corrugator supercilii, occipito-frontalis and orbicularis palpebrarum. From cramp these muscles ache. As the frontal portion of the occipito-frontalis contracts, so also does the occipital portion, and we have the occipital pain.

The extraocular muscles, the recti and obliqui, are subject to disorders in strength and attachment, and contribute their share in ocular pain and discomfort.

Of course there are many other symptoms incident to eye strain, but this paper considers only the aches that may be confused with sinusitis.

To recapitulate, the aches due to an uninflamed eye (which are the only ones to be confused with sinusitis) are due, with few exceptions, to spasm and cramp of the ciliary muscle and the accessory muscles of accommodation, in the effort to secure sharp vision.

The bones adjacent to the nasal cavities, the frontal, ethmoid, superior maxilla and sphenoid, are hollow, giving added strength and decreased weight, and becoming sounding chambers for the voice. These spaces, the accessory sinuses of the nose, are named as follows: Frontal, Maxillary (Antrum of Highmore), Anterior and Posterior Ethmoid and Sphenoid.

The frontal sinus is a cavity between the anterior and posterior tables of the frontal bone, its size limited in some cases only by the limits of the bone itself. It may extend high up on the forehead, back over the orbit to its apex, and laterally along the brow to the fronto-malar suture. By a long, narrow channel, the fronto-nasal duct, at the antero-internal corner of the sinus, it is connected with the nose, entering under the middle turbinate.

The Antrum of Highmore, or maxillary sinus, is the cavity of the superior maxilla. Its nasal opening is situated near its summit and appears under the middle turbinate.

The ethmoidal sinuses are the numerous small cells of the ethmoid and frontal bones, extending in a row from the nasal bones back to the sphenoid. They are divided into the anterior and posterior, the former having their minute openings into the nose beneath the middle turbinal, the latter above it.

The sphenoidal sinus is the large cavity of that bone, at the center of the head, and opening into the nose just above the posterior nares.

Brühl gives the following average content of the sinuses: Antrum, 10.5 cc.; frontal, 2.8 cc.; ethmoidal, . . .; sphenoidal, 1.9 cc.; total of all the sinuses, 45 cc. (*i. e.* right and left). These figures naturally may vary within wide limits.

These sinuses are all lined by mucous membrane continuous with that in the nose, with which cavity they communicate by minute orifices. The frontal, maxillary and anterior ethmoid

open under the middle turbinate, between it and the outer wall of the nose. The posterior ethmoid and sphenoid have their outlets above the middle turbinate. Discharge from the former will come out of the anterior nares, from the latter group from the posterior nares. The thin mucus which pours from the nose in an acute cold is too copious to be made in the nose itself; there is not enough secreting membrane. It is made in some or all of these sinuses. After a fit of sneezing the nose fills with mucus, and we say we are catching cold. Maybe we are, but the mucus which then fills the nasal cavity has been already formed in the sinuses and is merely blown from them by Nature's method of cleansing them.

If the rhinitis be severe enough to cause sufficient swelling of the mucous membranes to close the orifices of the sinuses into the nose, the secretion which is still being formed in the sinuses cannot escape; it accumulates, makes pressure within the cavities, is appreciated as a dull feeling of weight and fullness, or a pain of any degree of intensity which may be so excruciating as to drive the patient nearly mad.

Given a chronic condition of the membranes, which so many have and do not suspect, and a very light, acute rhinitis will be sufficient to cause stoppage and pain. In many cases there is no history of discharge by which to account for the aches. In these cases there is a swelling of the delicate turbinal membranes, making pressure against the sinus openings and causing complete retention. And let me emphasize that many, many cases of sinus headaches do not have apparent nasal discharge. You may then say, "How can we diagnose them?" It is difficult, but by a careful study of other symptoms we can render a diagnosis highly probable or even certain, and the treatment will decide.

Frontal sinusitis is the most common. This sinus opens into the nose by a long duct extending from its lower inner end. During sleep the secretion, falling back into the depths of the sinus, tends to accumulate. On rising it will try to work its way down into the nose, assisted by sneezings and blowings. The pain in this case is most apt to be over the eye, and to work off by noon as the secretion gradually forces its way out.

Maxillary sinusitis gives a feeling of weight and fullness in the cheek, the ethmoidal between the eyes. The sphenoidal gives a deep ache which will ofttimes be occipital.

However, the location of the pain is not diagnostic, in all cases, of the sinus involved. And seldom is but one sinus giving trouble; more often a group, in which event the pain will be in various places.

There is usually tenderness on pressure over the inflamed sinus. In the case of the frontal sinus this will be through the eyebrow or under the overhanging rim of the orbit at its nasal end.

Intrasinus pressure may cause an edema of the overlying skin,

for instance the brow, upper lid, cheek. Then, in most of the cases there will be a history of nasal discharge, or mucus can be found perhaps under the middle turbinate on inspection.

Differential Diagnosis.—Is a given headache ocular or sinus? As we have seen, both ocular and sinus headaches may be in or around the eyes anywhere. The eyeballs may be tender in each. But tenderness over the bone is apt to be more marked in sinusitis. Make pressure with the two thumbs under the overhang of the brow near its nasal end. An ache here, with tenderness on pressure, is nearly pathognomonic of frontal or ethmoidal sinusitis. Care must be taken not to press upon the supraorbital nerve.

A sinus ache will usually be worse in the morning, wearing off as the day progresses; but not, by any means, always so. An ocular ache is usually worse as the day goes by, though some of the most severe eye aches are present on awakening, especially after severe use of the eyes the day before.

The typical ocular ache is either caused by reading or sewing a variable while, or is made worse by these occupations. A sinus ache usually is not caused by use of the eyes, though in some frontal sinus inflammations there is photophobia and asthenopia.

The sinus pain, of course, will usually be accompanied by nasal discharge, which is entirely lacking in the eye cases. It is often made worse by stooping, blowing the nose, exercise; it is usually accompanied by a heavy feeling in the head.

While the pain from eye strain may have a sudden onset, yet it is seldom that such a patient will state that the trouble "began one day with a severe pain," unless there is also a history of illness, accident, overwork, change of work or lighting, breaking glasses, etc. But the sinus patient may awaken with an intense neuralgia, full blown. A dark room will often favorably influence ocular aches, but will have little effect on sinusitis.

Sinus cases also present aches often of such intensity as to be well-nigh unbearable. Ocular aches without visible inflammation are seldom like this.

The headache that accompanies a cold is usually sinus; that during and following *la grippe* is decidedly due to sinusitis.

The sinus ache is polymorphous in character, but may be neuralgic, diffuse, constant, intermittent, and unfortunately in many cases it is not typical.

Many sinus cases live their whole lives long under the mistaken diagnosis of habitual headache. I have seen many of these cured by nasal irrigation and other treatment. It is a common and erroneous belief that because nothing is wrong with the nose itself the cavities adjacent thereto are normal. A seemingly incurable headache should not be called a nervous headache until all possibility of sinusitis is excluded.

Fortunate would we be indeed were the diagnosis ever so sim-

ple, as must appear from a table of differentially diagnostic points. Many a case presents itself with headache of more or less severe a character on which a diagnosis can be made only by the result of treatment of both eyes and sinuses.

TABLE OF DIFFERENTIALLY DIAGNOSTIC POINTS:

Sinuses.	*Eye.*
1. Bone tender on pressure.	Not so prominent.
2. Spontaneous ache and tender on pressure over eye or under brow pathognomonic of sinusitis.	Not accompanied by especial tenderness on pressure.
3. Apt to be worse in the morning, wearing off by noon.	Usually worse on using eyes, exposure to sun, therefore worse as day progresses.
4. Rarely influenced by use of eyes.	Caused by reading, sewing or intent looking.
5. Usually history of nasal discharge elicited by careful inquiry.	No nasal discharge.
6. Worse by stooping, blowing, exercise.	Not especially influenced by these things.
7. Feeling of fullness and weight.	Not so prominent.
8. Onset often sudden, with or without history of exposure or of cold.	Onset of severe symptoms not so apt to be sudden, without history of ocular causes.
9. Darkness has little influence.	Better in dark room.
10. May be nearly unendurable.	Not so bad in absence of visible inflammation.

Dr. Wells said that he could not discuss ocular headaches, but was interested in sinus disease, and particularly in the symptoms of the various varieties. It was very interesting to have a paper dealing entirely with symptoms rather than with treatment; such a paper must do much good, particularly in such an important symptom as headache. It is no doubt true that more headaches are due to sinus disease of one kind or another than practitioners or even specialists suspect, and Dr. Henning had stated this very well. The cause of the pain in sinus headaches is more than the mere accumulation of exudates and the pressure resulting therefrom; each of the sinuses is provided with an ostium through which the secretions are poured out; but the ostium is not exclusively for drainage, it is for ventilation as well, and the latter function is very important. Closure of the vent will allow of rarefaction of the contained air and consequent congestion; in purulent cases decomposition may give rise to gases, and these being pent up by the swollen ostium may cause pain. Differentiation is not only important between the eye and the sinuses as to the true cause of the headache in a given case; differentiation between the different sinuses is also important; and the symptomatology of the different forms of sinus disease is important to the practitioner especially, because the specialist has at his com-

mand diagnostic aids not available ordinarily at the bedside. He commended the paper as very instructive and helpful.

Dr. Henning had purposely avoided reference to treatment, as the paper dealt only with differential diagnosis; besides, the differentiation desired to be made clear was that between ocular and sinus headaches; differentiation between the different sinuses was another and more extensive subject.

THE PSYCHOPATHIC WORK AT THE WASHINGTON ASYLUM HOSPITAL FOR THE YEAR ENDING JUNE 30, 1911.*

By D. Percy Hickling, M. D.,

Washington, D. C.

In submitting a résumé of the work of the Psychopathic Ward at the Washington Asylum Hospital it may be of interest to know that I have attempted, as far as the medical management was concerned, to keep four definite objects in mind: First, to provide for the immediate and proper treatment of acute cases of insanity, especially those characterized by violent and disturbed conditions; second, the opportunity for examining and studying the mental condition of "mental suspects" and advising the treatment best adapted for their present condition, whether they should be sent to St. Elizabeth, be returned to their homes or be treated in the wards of the General Hospital; third, a detention ward for the observation and diagnosis of early or doubtful cases, and fourth, to provide a place for the proper treatment of the early stages of mental conditions before the malady has developed to the extent of requiring the operation of the so-called lunacy laws.

One of the first difficulties which I supposed would occur was the question of the right to detain cases suspected of mental disease. Strange as it may seem, we have had no difficulties in that direction; our mental cases usually are admitted just the same as the other patients in the Institution and are sent to the psychopathic ward just as they are to any other ward of the hospital, the organization of the psychopathic ward being on a hospital basis; and the cases are treated as sick patients and not as prisoners. It will be remembered that for many years an indigent person suspected of insanity had to be arrested, taken to the police station, examined by the police surgeon and taken to St. Elizabeth in a patrol wagon; or, if found to be not legally insane he was discharged, and that was the whole story in the Dis-

*Read before the Medical Society, October 18, 1911.

trict of Columbia. It was thought by many that this treatment was highly satisfactory.

In this connection it may be of interest to note that in the fiscal year ending June 30, 1910, 147 cases were admitted into the psychopathic ward through the court and the sanitary officer of the District, and 159 cases were admitted, just as other sick patients are admitted, by the request of the Board of Charities, police precincts or physicians; while for the fiscal year ending June 30, 1911, only 58 cases were admitted through the court and sanitary officer, and 349 were admitted at the request of the Police Department, Board of Charities and physicians, and several cases have been admitted at their own request, showing conclusively the natural drift of these cases.

When the question of detention is raised by the patient himself he is frankly told that something he has said or done has caused some of his friends or a member of the Police Department to think that he is insane and that he has been brought to the hospital for observation and whatever treatment might be necessary, and his coöperation is asked. This statement made to cases not insane has been in all cases satisfactory as far as the hospital is concerned, and in those cases that are insane it has always provided ample time to prepare the necessary papers, invoking the aid of the law. When the question of the right of detention is raised by any of the friends or relatives we make the same statement to them, and if they are not satisfied and if there is no charge against the person, we tell them that we will be glad to discharge the case into their custody, and have them sign a card stating that we have informed them of the mental condition of the patient and that they will assume all responsibility for his proper care and treatment. With this method we have had no trouble, nor do we expect any.

During the past year we have examined 407 cases; 27 admitted by request of the court, 31 sent by the sanitary officer, 190 by the Police Department, 102 by the Board of Charities and 57 from the Washington Asylum. The average number of days spent by these cases in the psychopathic ward was 13.7 days. After examination of these cases 13 were returned to the court, 36 were discharged to the other wards of the hospital, 62 into the custody of friends, 32 were discharged cured, 13 died and 251 were transferred to the Government Hospital for the Insane. Of these 407 cases 283 had been addicted to the use of alcohol, 124 denied its use, 11 had been addicted to the use of drugs, 64 had had previous attacks, 78 had shown violent acts, either homicidal or suicidal in their nature, and 63 had required restraint at some time during their treatment.

In referring to the various forms of insanity I have combined the work of the last two years, making 713 cases in all; the classification is a provisional one and the attempt has been made

to follow Kraepelin as nearly as possible, but doubtless in some instances the classification would be subject to revision after a more prolonged observation and study. In only a few cases was it practicable to make an examination of the cerebrospinal fluid or blood.

General Paralysis.—Under this heading are included all cases showing mental symptoms accompanied by the well known physical defects ; in a few of these cases it was possible, through the kindness of Dr. Hough, of the Government Hospital for the Insane, to have the blood and cerebrospinal fluid examined. There were 28 cases, 22 of which were sent to the Government Hospital for the Insane, 4 were discharged into the custody of friends and two to the general wards of the hospital.

Maniac Depressive Insanity.—Under this heading were classified all cases of pathological excitement or depression without mental or physical symptoms of deterioration, and were 78 in number ; 67 were sent to the Government Hospital for the Insane, 7 were cured and 4 died, while only 20 gave a history of a previous attack.

The *dementia precox* group includes all the cases showing excitement or depression accompanied by symptoms of mental deterioration ; all these cases were accompanied by several of the physical symptoms so often found in this form of insanity. There has been no attempt in this report to recognize the subdivisions of this psychosis, the total number of cases being 196 ; 168 were sent to the Government Hospital for the Insane, 3 to court, 4 to the wards of the Washington Asylum, 5 were discharged into the custody of friends and 2 died.

Melancholia.—Under this heading were classified those cases of apprehensive depression, associated with more or less fully developed delusions beginning in those advanced in years ; there were 16, 7 of which were sent to the Government Hospital for the Insane, 7 discharged into the custody of friends and 2 to the wards of the Washington Asylum.

Paranoia.—Under this heading were included those cases of exaggerated ego combined with systematized delusions of persecution, without symptoms of deterioration ; there were 57 cases in all ; 46 were sent to the Government Hospital for the Insane, 2 to court, 2 to Washington Asylum Hospital and 7 were discharged into the custody of friends. This classification includes the paranoid states.

Senile Dementia.—Under this heading were included only those senile cases showing delusions and defective orientation, and it does not include those feeble-minded conditions occurring in the aged ; there were 88, 61 of which were sent to the Government Hospital for the Insane, 9 to the general wards of this hospital, 13 to the custody of friends and 5 died.

Epileptic Insanity.—This, of course, does not include the cases

of epilepsy that are admitted into the general wards, but only those showing decided mental symptoms, including delusions or acts of violence between the attacks. Without this classification all these cases would probably be included under the head of imbecility or dementia precox ; there were 33 cases in all, 19 being sent to the Government Hospital for the Insane, 2 to court, 6 discharged into the custody of friends, 3 to the wards of the Washington Asylum Hospital and 3 died.

Imbecility.—These cases were usually discharged unless their mentality was such that they could not get along in their environment, in which event they were deemed proper subjects for institutional care ; 31 of these cases were examined ; 15 were sent to the Government Hospital for the Insane, 1 to court, 4 to Washington Asylum Hospital and 10 were discharged into the custody of friends.

Toxic Psychosis.—All these cases were due to the excessive use of alcohol, and probably all forms of insanity were simulated by these toxic conditions ; that is, upon a casual examination some would appear to be maniac depressive, some precox cases, some paranoiacs and several appeared to be cases of general paralysis ; they all, however, showed the characteristic symptoms of chronic alcoholism and a decided tendency to recover upon removal of the cause and the administration of proper treatment. There were 130 of these cases ; 22 were sent to the Government Hospital for the Insane, 3 to court, 19 to the wards of the hospital, 11 to the custody of friends, 72 were discharged cured and 3 died.

Of the 713 cases examined 55 were found to be not insane ; all these cases, of course, showed mental symptoms ; some were found to be malingerers ; some senile or imbecile ; 10 examinations were made at the request of the court prior to trial or sentence, and 20 were found to have other diseases accompanied by fever with exaggerated mental symptoms.

During the past two years several sad cases have come to my knowledge, where, through the failure of the family physician to recognize well-marked though early symptoms of insanity, improper advice had been given which led to disastrous consequences.

The lesson to be learned from my experience in the observation of these cases is the old story that has been so well demonstrated in the study of appendicitis and pulmonary tuberculosis, namely, that as a rule when these cases first came under observation and treatment the mischief had been done and the cases were so far advanced as to be either hopeless, as far as cure was concerned, or would require years of care and treatment to restore their mentality ; for they nearly all gave a history of the existence of symptoms for months and years which should have been noted and treated and which to the experienced physician in this class of cases are so plain that to ignore them seems inexcusable. It

is my firm belief that in the psychoses, as in other conditions, the recognition of early symptoms and their proper treatment would in a large percentage of cases not only avoid the disaster of an incurable mental state, but would in a large percentage of cases avoid a mental breakdown; this opinion has been substantiated by the results obtained in my private work, so that in my judgment the greatest preventive of the insane condition today, as we see it in our institutions, is the recognition and treatment of the early symptoms.

Dr. Lee said that he was incompetent to discuss the report from a scientific standpoint, but he wished to voice an appreciation, for himself and the profession generally, of the labors of Dr. Hickling in devising and providing a plan for the acute insanities in this city and for the signal success of the working of the plan.

Dr. Kober congratulated both Dr. Hickling and the community on the results of the work set forth by the report just presented to the Society. It had been Dr. Hickling's enthusiastic interest in the needs of the community which had induced the Board of Charities to expend, a few years ago, $3,000.00 in fitting out a ward at the Washington Asylum for carrying on this work for the relief of psychopathic patients; and it had been with this limited equipment that the excellent results included in the report had been obtained. The effect of this work, in part, upon the community may be seen from the fact that last year, for the first time in the history of the city of Washington, the appropriation for the care of the insane of the District at the Government Hospital was not expended by about $10,000.00; this, of course, was a clear saving. But an even greater saving, from a human standpoint, was the curing of such a large proportion of the cases and their discharge without the stigma of asylum commitment. Dr. Hickling deserves great credit; while not at first a specialist in psychiatry he attacked the problem of the proper caring for the acutely insane committed to his care at the Washington Asylum Hospital, and, laboring under the most adverse conditions, he had attained the excellent results tabulated in the report just read.

Who's Loony Now?—"This division of the women's ward," said the asylum guide, "was made necessary by the new style in skirts."

Looking in, the visitors saw a number of women in queer, bifurcated garments parading up and down the room.

"These patients," continued the attendant, we call our pantalunatics."—*Lippincott's.*

TUMORS OF THE MALE BREAST.*

By D. S. Lamb, A. M., M. D.,

Washington, D. C.

The specimen is the mammary gland of a man, age 60. It contains a small tumor beneath the nipple, which is retracted. The microscopic examination, made by Dr. J. S. Neate, of the Army Medical Museum, showed a pericanalicular fibroma, with some hypertrophy of the gland elements; no malignant condition; in other words, an adeno-fibroma. The tumor was first noticed by the patient in March of this year; there was no history of injury other than irritation from a suspender; very little pain. The breast was removed in June under local anesthesia; the neighboring lymph nodes were not involved. One sister of the patient died of cancer of the uterus. The specimen was donated to the Museum by Dr. J. W. Bird, of Sandy Spring, Md.

In view of the comparative rarity of tumors of the male breast it would seem to be worth while to say something more on this subject. According to W. R. Williams (*Lancet*, 1889, II, pages 261 and 310), of 15,481 cases that he collated from the records of four London hospitals, and covering a period of 16 to 21 years, 2,422 were of the breast; of these 2,397 were female and 25 male; in other words, the male breast apparently is affected about one time in 100 as compared to the female. Of the 25 cases in the male breast 16, or about two-thirds, were carcinoma, 3 were sarcoma, 2 myxoma and one each adenoma, lipoma, angioma and cystoma. Williams made a study of 100 cases of cancer of the male breast; the larger number were on the right side, while in tumors of the female breast the larger number are on the left side.

The most complete essay on the subject appears to be that of Schuchardt (*Archiv f. klin. Chir.*, Berlin, 1884, XXXI, pp. 1 to 58, and 1890–1, XLI, pp. 64 to 100). He collated 469 cases.

There are now in the Medical Museum six specimens, one of which, contributed by Dr. Balloch, of this Society, was shown to the Society and was published (Washington Medical Annals, 1903, Vol. II, page 8). The other five cases, including that presented this evening, have never been published, and I therefore give a brief history of them.

One is a fibroma, removed from the right breast of a soldier; had been growing about 15 months; contributed by Dr. J. M. Homiston, of the volunteer army, in 1865. Another, apparently also a fibroma, was removed from a soldier, but without further history; contributed by Dr. T. H. Stillwell, a contract surgeon of the army. A third, a scirrhous cancer, with cystic degenera-

* Reported to the Medical Society, October 4, 1911.

tion, of four years' growth, was removed from the right breast of a soldier, age 32 ; it was adherent to the skin, underlying muscle and bone. Two months after the operation another tumor appeared at the summit of the sternum and was removed. Nearly three years afterwards a third tumor appeared, this time in the neck, but it proved to be simply an enlarged gland. The soldier remained to all appearances well ; contributed by Dr. W. H. Forwood, of the army. A fourth specimen is a fibro-lipoma removed from the right breast of a man, age 23, who afterwards became a medical officer in the army. He had been struck on the breast while boxing ; the tumor was first noticed about one year afterwards and became painful ; enlarged to the size of an orange. Under the local application of tincture of iodine it shrunk to one-half that size. Two years later it was removed by Dr. J. Ford Thompson and sent to the Museum. The officer has been well since the operation, now many years ago.

The case reported by Dr. Balloch, having been already published, need not be again recited.

It is probable that the specimens reported as fibroma were, as in the case of Dr. Bird, really adeno-fibroma, since a pure fibroma is exceedingly rare in the breast.

Dr. Vaughan had removed an interesting tumor from the left breast of a Cornell student, thinking he was dealing with an adeno-fibroma ; the microscopic examination, however, showed it to be carcinoma. There were two points of special interest : the youth of the patient and the location of the tumor in the breast.

PELLAGRA: WITH REPORT OF A CASE.*

By S. R. Karpeles, M. D., Washington, D. C.

The literature on the subject of Pellagra has become most extensive. The index catalogue of the Surgeon General's Library devotes nine pages to this subject, prior to the year 1907, since which time about 525 additional articles have been published.

Pellagra was first described by Casper Casal, in 1750, as " Mal de la rosa." Frapolli, in 1771, applied the name Pellagra (rough skin) to the disease. Two cases were reported in the United States in 1864, by Dr. Gray, of Utica, N. Y., and Dr. Tyler, of Massachusetts. In 1902, after a lapse of 38 years, Drs. Sherwell, of New York, and Harris, of Georgia, each recorded a case. July 7, 1907, Dr. Searcy, in the *Journal Amer. Med. Association,* reported an epidemic of acute pellagra occurring in the Mt. Vernon Hospital, in Alabama ; 88 cases, attended with a mortality of 64 per cent. Prior to this time pellagra had not been recognized

* Read before the Medical Society, October 25, 1911.

as occurring in this country. This article seems to have been the stimulus to the vast amount of work that has been done upon this subject in the last few years.

Various theories of causation have been advanced, such as spoiled maize, Sambon's parasite, Alessandrini's filaria, Tizzoni's streptobacillus, etc.; yet the conclusion of the "Conference on Pellagra," held at Columbia, S. C., Nov. 4, 1909, that the "etiology is not known," still holds good.

The pathology of pellagra has not been placed upon a very firm basis, and the future will doubtless demonstrate that the primary changes are in the central nervous system. The symptoms of the skin, gastro-intestinal tract and nervous system constitute the triad of pathognomonic symptoms, which will be more fully discussed in the case reported.

Pellagra is universally conceded not to be contagious, but the prognosis in this country is grave. The magnitude of the subject can be better appreciated from the estimate in 1906, of 200,000 cases in Italy, Austria and Roumania, and 1,500 cases in the United States. In view of the facts that this disease is now reported in more than thirty States and the census statistics showed no deaths due to this cause in 1906 and 1907, 23 in 1908, 116 in 1909, and 368 in 1910, we can readily infer that the number of cases in this country now is far in excess of the number quoted five years ago. Opportunities to study pellagra have not been entirely lacking in the District of Columbia; two cases were diagnosed at the Government Hospital for the Insane, one at Providence Hospital, and Drs. Thomas and Behrend each had a case under observation at the Georgetown University Hospital in 1910.

The case which I briefly desire to report is as follows:

R. W., colored, female, married, age 56; residence, Orange, Va. Mother died of dropsy, at the age of 47, perhaps had tuberculosis. Father dead, cause unknown. The patient was a healthy child and menstruated at the age of 13, always normal. Had "slow fever" at 17. Married at 19, gave birth to 11 children, normal deliveries. Was treated for a short attack of rheumatism at 42. Menopause, normal at 45. I had her son under observation and treatment, in the latter part of July, 1911, for about two weeks, for a general eczema; he made a good recovery. No case of pellagra has been in her immediate family or neighborhood. Her hygienic surroundings, in Virginia, were good and she had no pernicious habits. Corn-bread and wheat-bread were eaten in equal quantities; the corn-meal was procured at the mill and was of good quality.

The first symptoms of the present condition were noted about two years ago as pains in the epigastric region, diarrheal attacks, loss of weight, weakness and mental depression. Since February, 1911, she has had attacks of vomiting, at times bloody, and

in March her mouth, throat and hands became affected. She came under my care May 28, 1911. Her mouth was the seat of an intense stomatitis: the tongue was intensely red, with dirty whitish sloughs on the floor of the mouth. The inflammatory condition extended back into the pharynx as far as could be seen. Both the vomitus and stools contained blood. The taking of liquids caused burning pains in the mouth and abdomen. These symptoms, with the diarrhea, demonstrated the severe inflammatory condition present throughout the gastro-intestinal tract. A



persistent vaginitis was also noted. The skin lesions started about May 1, 1911, with redness, swelling, exfoliation and fissuring, a "Dermatitis exfoliativa," affecting the dorsums of the fingers and hands, and extending about three inches above the wrist to a well-defined line of demarcation. Some pigmentation of the face, forehead, back of neck and shoulders, with a general dryness and roughness of the entire skin, was observed. The patient was depressed, memory was poor. She suffered from insomnia and

stated persistently that her condition was caused by someone having poisoned her food. Both knee jerks were increased, sight and hearing diminished and taste was coppery. The temperature, pulse and respirations were about normal throughout the attack and muscular wasting and general weakness were pronounced. The blood count showed 4,444,000 red cells, 8,000 white cells, and 95 per cent. haemoglobin. The urine was acid, sp. gr. 1,026, no albumin nor sugar; a large number of leucocytes present.

The treatment was dietetic and symptomatic; consisted mainly of an antiseptic mouth wash, bismuth and salol internally, and bowel irrigations, with the result that one month after starting this régime the stomatitis and gastro-enteritis had practically disappeared. The skin lesions were more stubborn, but three weeks later had responded nicely to starch-water baths, followed with an ointment of salicylic acid, bismuth subnitrate and zinc oxide. The nervous symptoms kept pace with the general improvement, and about July 9 she returned to Orange, Va., in excellent condition. In a letter dated October 18, the patient stated that "She had vomited twice in the last week, that the stomach, throat and chest were painful, and that her mouth and gums were not well." Evidently she is about to have a relapse, so characteristic of pellagra.

In conclusion, I wish to express my thanks to Drs. Claytor, Carmichael, Tom A. Williams, Snyder and C. L. Davis, who saw this case in consultation with me.

Dr. Claytor had had the privilege of seeing the case reported by Dr. Karpeles and had found the manifestations of the disease interesting and characteristic. It was his first opportunity to study such a case, and the clinical picture was just what published descriptions of the disease would lead one to expect. He congratulated Dr. Karpeles on the marked improvement of the patient while under his care.

PROPHYLAXIS IN THE MILITARY SERVICE; TYPHOID AND VENEREAL.*

By L. H. Reichelderfer, M. D.,

Washington, D. C.

The public and the profession owe a vast debt to the officers of the military medical services, as by them during the past twenty years many of the most important advances in pophylactic medicine and sanitation have been made. The most important function of the medical officer is to prevent disease and disability;

* Read before the Medical Society, October 25, 1911.

and it is to this end that he receives his special training. It is his business to keep every man possible fit for duty on the firing line; a disabled soldier is worse than useless in active campaign and is eliminated from the active troops as rapidly as possible. In this connection it is natural to recall the splendid achievements of the American medical officers, Drs. Reed, Carroll and Lazear, in the prevention of yellow fever, formerly so fatal to northern troops operating in the tropics. We can never tell how much credit these men should receive for the successful work on the Panama Canal.

I wish tonight to call briefly to your attention some results secured recently in prophylaxis in the military service in the prevention of typhoid fever and venereal disease, which have always been sources of a vast amount of military disability. In regard to typhoid it may be well to quote a few statistics. In the Boer War the English had 31,000 cases with 5,877 deaths; in the Franco-Prussian war the Germans had 73,000 cases with 8,700 deaths; accurate statistics of the Russo-Japanese war have never been published; in the Spanish-American war, among 107,000 men there were 20,738 cases of typhoid with 1,580 deaths; some regiments of 1,300 men had over 400 cases of typhoid, and we must remember that in some cases these troops did not leave the United States and were not subjected to any unusual hardships. It is no wonder that the Medical Department since 1898 has given so much thought to means of preventing a repetition of this appalling record. That under similar conditions the record would be repeated, at least to a great extent, is the general belief, unless prevented by some means vastly more effective than hitherto practiced. No matter how complete and apparently effective the sanitary regulations be made for an army, they are likely to be neglected in the stress of campaign. All army officers tell of the difficulty in compelling soldiers in the Philippines to observe sanitary regulations, even in the presence of such a terrifying disease as cholera. In 1900 a Board of Army Officers stated as its belief "that with typhoid fever as prevalent as it is in this country, the chances are that if a regiment of 1,300 men should be assembled in any section, and kept in a camp, the sanitary conditions of which were perfect, one or more cases would develop." It also stated that a regiment did not lose the infection by changing station. As Major Russell states, while the Board did not know anything about bacillus carriers, it approached very near their discovery in making these observations. The statistics of the country at large are far from flattering; it is estimated that in 1910 there were 39,000 deaths from typhoid, and the record is bad as compared with that of other principal nations.

Those who are interested in the history of typhoid prophylaxis and in the theories of the production of immunity are referred to

a comprehensive paper on the "Control of Typhoid in the Army by Vaccination," published last year by Major Russell, of the Army Medical Corps. Suffice it to say that the method was used by the English in the Boer war with apparently good results, but the matter was not pushed, differences of opinion arose and the procedure was dropped;—probably the fact that only a portion of the troops were treated, and by an imperfect vaccine, accounted for the lack of marked success. The Germans secured good results in Southwest Africa in 1904-1907. Inoculations were begun in the United States Army in March, 1909, those who volunteered receiving the treatment. Among 12,000 persons inoculated in 1910, three cases of fever developed with no deaths; the ratio for the year of cases per 1,000 of vaccinated men being .26; of men not vaccinated being 4.11.

In the summer of 1910 a company of engineers, of a strength of 118, left the Washington Barracks to take part in the Gettysburg maneuvers. All except twenty-four were inoculated. Shortly after their return to Washington six cases of fever developed among the non-protected 24 men, while not a case developed among the 94 men who had been protected. It is within the past few months, however, that the most conclusive experiment has been made. In the spring of 1911 a maneuver division of about 13,000 troops was mobilized at San Antonio, Texas, and remained in camp for a period longer than the duration of the whole Spanish-American war. By order of the War Department every non-immune soldier in the camp was vaccinated; as a result, only two cases of fever developed in camp—one a non-vaccinated civilian teamster and one mild case in an enlisted man. This experience, covering a considerable period of time and a considerable body of troops, should serve to dispel any lingering doubt as to the value of the prophylactic. Orders have been issued for the general inoculation of all the Army and of all recruits, so that within a short time it is hoped to have an army practically immune to typhoid fever. Some work has already been done in National Guard organizations. I have recommended the treatment for the local National Guard prior to the next encampment, and the plan will soon be used in all the State organizations.

As to the method of administration, I will quote from a circular issued June 5, 1911, by the Surgeon General's office:

"The following directions for the administration of the typhoid prophylactic are published for the information of medical officers:

"The first dose is ½ c.c. (7½ m.) (500,000,000); the second and third are each 1 c.c. (15 m.) (1,000,000,000). An interval of ten days being allowed between doses, the entire course thus requires twenty days.

"The site of the inoculation is the arm at the insertion of the

deltoid muscle. The dose is to be given subcutaneously and not into the muscles nor into the skin. The arm should be cleaned as for any other operation. The use of tr. iodine diluted with an equal volume of alcohol has proved satisfactory as a skin disinfectant. The dry skin is painted with the iodine before and after the hypodermic injection.

" The glass container should be washed off in an antiseptic solution and opened after making one or more cuts near the top with a file. The prophylactic can be drawn out of the container with the syringe, or it may be emptied into a salt cellar which has been sterilized by boiling.

" The syringe and needle should be sterilized by boiling in 2 per cent. soda solution. To insure perfect sterilization draw the piston out to its full length or remove it entirely, so that the barrel is full of water during the boiling. A fresh needle must be used for each man, or if the same be used it must be plunged into boiling soda solution to resterilize it.

" The most suitable time for administration of the prophylactic is about 4 o'clock in the afternoon, as the greater part of the reaction is then over before morning.

" No applicant should be immunized who is not perfectly healthy and free from fever at the time, and it is advisable in case of doubt to take the temperature and to examine the urine; in the case of any man who has fever or any other signs of illness it should be postponed until he recovers. This precaution is necessary to avoid its administration to men who may be coming down with typhoid or other fevers.

" The men should be cautioned not to drink beer or alcohol in any form on the day of treatment.

" There is usually some headache and malaise and a local reaction consisting of a red and tender area about the size of the palm of the hand and sometimes tenderness in the axillary glands. The entire reaction is over in forty-eight hours, and it seems best for the present not to require any duty for that period, nor to permit any active exercise, such as long rides or walks.

" Some individuals may be very susceptible and develop a marked general reaction (headache, backache, nausea, vomiting, herpes labialis and rarely albuminuria, and some loss of body weight). The number of such reactions has been exceedingly small, and regardless of their severity they all disappear completely inside of forty-eight hours. No untoward results of any kind have ever been noted. * * *

"Any prophylactic remaining unused should be thrown away and a fresh vial opened for each day's use. It should be stored in the ice box.

"An interval of ten days between doses has been adopted, because experience shows that nothing is gained by giving the

doses closer together. The production of large quantities of specific anti-bodies does not become evident until about eight to ten days after administration; the second dose is, therefore, not given until the first has become effective, since there may be a temporary fall in the quantity of protective bodies present in the serum after the administration of the second and third doses. It is not believed that there is any increased susceptibility following the first dose, but that increased resistance begins immediately, although the degree of immunity produced is not very high until after the lapse of ten days.

"If it is not convenient to give the second dose at the regular time, it may be postponed up to the fourteenth day, but it is not well to wait longer than this if good results are to be obtained.

'This prophylaxis is well borne by children and by women, using doses proportionate to the body weight, taking one hundred and fifty pounds as the unit. Women should not be given the first dose during or near the time of the menstrual period.

"The prophylactic will keep for six months and perhaps longer when it is stored at low temperature in the dark, but it is desirable to administer it as soon after its preparation as is consistent with complete and thorough tests of its purity and sterility.

"The Widal reaction is always positive after typhoid prophylaxis; it appears in about ten days after the first dose and remains positive for six months to a year. This fact must be considered in diagnosing typhoid in immunized persons; they give a positive Widal regardless of the nature of the illness, and the reaction is consequently of no assistance in making a diagnosis. If typhoid is suspected the diagnosis should be confirmed by blood culture."

As to the duration of the immunity, no statistics are as yet available, but it is thought to be at least three years. As to the curative value of the vaccine, most of the evidence is in the negative; it is possible that certain cases of typhoid of long duration, with persisting mild fever, may be benefitted; Dr. Sterling Ruffin reported good results in such a case about two years ago. It has been suggested that it might be of value in case of bacillus carriers, but so far as I know, this phase of the question is unsettled.

The question of the employment of the prophylaxis in civil practice presents itself; if favorable evidence continues to accumulate, it may not be long before its use becomes a matter of law, as in smallpox vaccination. Fortunately there is apt to be less public opposition. In the first place the undeniably good results in the Army have been given wide publicity, and in the second place the severe symptoms and unsightly arms of small-pox vaccination are absent; and also, it is to be hoped, the occasional deaths, which are so widely heralded. Compulsory inoculation would be violently opposed by many, no doubt, no matter how

favorable the statistics; for instance, *Life* has already begun a campaign against its use in the Army.

Even if we cannot expect a general use of the preventive treatment in the near future, there are a few situations where its use would seem especially advisable; for example, in a case of fever treated at home, it might be well to immunize other members of the family, for we know the great liability of what are called "contact cases" developing; in schools or colleges it would seem advisable; the epidemic at Cornell University, with several deaths, a few years ago being a case in point. In every hospital cases of fever develop among the employees, who, in spite of every warning, become careless in their handling of patients. During the eight years I was in one of the local hospitals two physicians, five or six nurses and an orderly contracted typhoid; the only casualty was in the case of an interne who upon recovery promptly married his special nurse; that nothing more serious happened was simply a matter of luck.

The Army vaccine is prepared under the direction of Major Russell, in the laboratory of the Army Medical School; it can now be obtained in the open market and quite cheaply; the Mulford Company furnishes the three doses recommended by the War Department in syringes ready for use, at $2.50 the complete treatment. It also furnishes a hospital zize of ten complete immunizing doses for $5. In answering a recent letter of inquiry as to prices, etc., the Mulford Company writes: "We are pleased to advise that the demand for the immunizing package far exceeds our expectation. It is not only being used in private practice, but also by States and municipalities, and there does not seem to be any doubt as to the value of this bacterin as a prophylactic."

VENEREAL PROPHYLAXIS.

Within the past few years there has been inaugurated a constantly growing movement against the spread of venereal disease. The enormous prevalence of venereal disease and the resulting suffering, blindness, sterility and domestic discord have compelled attention, and the public here and abroad has awakened to the necessity of trying to improve these deplorable conditions. The movement is already under way; the German Association for the Prevention of Venereal Disease, under the presidency of Prof. Neisser, has over 5,000 members, and has done important work. In this country we have the Society of Sanitary and Moral Prophylaxis, and the Society of Medical Sociology. The movement is being widely and frankly discussed in the magazines and by speakers generally. Only a week ago Dr. Kober addressed a large audience in this city upon the subject. There will be recalled the remarkably frank editorials which have recently ap-

peared in the *Ladies' Home Journal.* The cautious and conservative tone of this magazine is well known, and its published discussions of venereal diseases simply show the tendency to publicly agitate the question.

In the military service a vast amount of disability has been caused by venereal disease, and the medical officers in their rôle of sanitarians have taken up the matter. Statistics on this subject are just as startling as those of typhoid fever, and in both conditions this country compares most unfavorably with others. In the Army for the past ten years the admissions for venereal disease have averaged 175 per 1,000, or more than 25 per cent. of the total disability for this period. Conditions in the Navy have been about as bad. In the Army it has been estimated that the continued loss of efficiency due to this cause is equal to the strength of a regiment; and in the Navy about equal to the continuous loss of service of a battleship. In spite of these facts, there was until recently a remarkable indifference to the question; venereal disease was regarded as an unavoidable evil, and the cases were often not recorded and treatment neglected.

The Germans first devised a system of personal prophylaxis and have used it in the military service for several years with good results. In our own service individual medical officers made sporadic efforts in this direction, but often without the disciplinary backing of commanding officers which is so essential to success. Recently, however, the procedure has been officially recognized, and orders issued in both the Army and Navy for the use of the personal prophylactic. The Army has been slower than the Navy in the matter, probably owing to the greater difficulty in carrying out the plan in land garrisons.

The usual method of treatment carried out in the Navy is as follows: In the first place, the method and object of the treatment are explained and every effort made to secure coöperation of the men. When men return to the ship from shore leave they report to the sick bay and are treated or not according to their statement as to exposure. A record is kept, and men who later develop venereal disease after denying exposure are punished, it being made clear to them that the punishment is not for exposure to infection but for lying about it. The men who admit exposure are treated by bathing with soap and water and the bichloride followed by an anterior urethral injection of 2 per cent. protargol; and finally by an application of 50 per cent. calomel and lanolin ointment.

In the Army it was the endeavor to devise a method which would be simple enough for the soldier to carry out without assistance; a mixture of 33 per cent. calomel ointment, with 3 per cent. phenol, is placed in a collapsible tube with a pointed nozzle. In the application half the mixture is massaged in the urethra and

half used as an inunction. This method is simple and seems to be effective against all forms of infection. The results obtained seem satisfactory.

At the Indiana Maneuver Camp in 1910, among 504 men who were exposed and used the prophylactic, only two infections occurred; while among 302 men who did not use the treatment, 39 infections occurred.

For the past two or three years the Naval surgeons have been publishing the results secured by them; I will not take the time to quote in detail, but they show that where the treatment was made compulsory, 80 per cent. or more of the venereal infection was eliminated. Of course, the results secured in the military services could not be equalled in civil life, where men are responsible to no one for their condition and are not under constant discipline and inspection. Military surgeons are more concerned with the disability resulting from venereal disease than they are with the ethics of the question. They seem to admit the comparative failure of moral instruction and concentrate their efforts on lessening the effects of exposure, and perhaps the same reasoning might well be considered in civil life.

In conclusion, it is hardly necessary to say that I do not call attention to personal prophylaxis as offering a solution of the venereal question. Any improvement secured will no doubt be very slow and be due to a combination of factors,—moral uplift, education, restrictive legislation and supervision, personal prophylaxis, all will probably play a part. One thing seems certain, the old policy of silence and evasion has been a failure and that of education and open discussion could hardly make matters worse. At all events, this is an era of general public enlightenment, and as there is a tendency to try to regulate almost everything, we may expect discussion and legislation on the venereal question. Many questions will probably be considered, such as teaching sex hygiene and physiology in the schools, the reporting of cases of venereal diseases, the regulation of prostitution, the fixing of health standards for marriage, and so on.

Only a visionary could indulge in the belief that typhoid fever and venereal disease can be eliminated, but I venture to predict that decided efforts will soon be made to decrease their enormous cost to our population. In any educational or legislative crusade of this sort, the members of the medical profession will be expected to advise and to assist largely in the work, just as in the fight against tuberculosis. We all remember how, only a few years ago, there was much discussion and great difference of opinion as to the advisability of proposed tuberculosis legislation. I have no doubt similar differences of opinion as to the subject of this paper would quickly develop. It is always unfortunate for the profession to appear before the public as divided against

itself; hence it might be well for us in the near future to think somewhat of these matters and endeavor to reach some practical conclusions.

Dr. F. F. Russell, Major, Medical Corps, U. S. Army, said that the matter of typhoid prophylaxis has received so much attention that not much remains to be said except upon the results of prophylactic inoculations thus far obtained. There are records of 60,000 persons in the Army who were given the prophylactic treatment against typhoid; among these there have been 12 cases of typhoid fever, no deaths; most of the cases occurred soon after inoculation, about six months, and mostly among very young men. The test of the method in the Texas maneuvers was most convincing that antityphoid inoculation affords a simple, safe and effective means of preventing this disease. Heretofore the bacillus carrier has been dreaded as a source of infection uncontrolled by the most rigid sanitary measures; but, in spite of the fact that there must have been many such carriers among the men in Texas, only one case of typhoid fever developed. The lesson learned is that the only precaution necessary against the carrier is to inoculate everybody against him. As experimental controls, the health records of Galveston and San Antonio may be used. During the time the troops were at Galveston, although no restrictions were placed upon the men going into the city, there were 142 cases of typhoid fever reported in the city, none among the soldiers; in San Antonio, during the four months of the encampment there, 49 cases were reported in the city with 19 deaths, one case in camp. The high death rate in San Antonio suggests that there must have been many more cases than were reported.

The subject of severe reactions receives rather more attention in the Army circular of directions for performing inoculation than the subject deserves; for severe reaction occurs only about once in 1,000 inoculations (hardly that now) and, regardless of the severity of the reaction, no permanent damage is done. He felt convinced that these instances are nearly always due to accidental intravenous injection of the bacterin, in whole or in part. With more care in giving the injection these cases should be eliminated. Severe reactions are hardly ever seen in children.

It seemed of interest to give the comparative figures of the Jacksonville, Fla., camp in 1898 and the San Antonio camp in 1911, because both camps were maintained in the summer season and both cities are in about the same latitude. In Jacksonville, in 1898, there were 2,693 cases of typhoid fever with 248 deaths; while in San Antonio, in 1911, with more men, there was one case of typhoid with no death.

As to the application of typhoid phophylaxis to civil life, the French Academy has gone on record with the dictum that those

exposed to typhoid fever by profession or by typhoid should be inoculated against the disease. Antityphoid vaccination is already much used in this country in hospitals, for the protection of nurses, attendants, etc. It is especially applicable to aggregations of men in commercial pursuits, such as railroad camps, logging camps, etc.

As to the use of typhoid vaccines for the treatment of the disease, statistics are available for only about 350 or 400 cases; these cases seem to show some benefit from the vaccine. It would seem that the inoculations ought to be able to influence the disease in some way; at any rate, the use of the vaccine can do no harm. The mortality in a series of cases treated with vaccines seems to be about half that of a control series.

Venereal prophylaxis is a most important question in the Army, because the non-efficiency from venereal infection is greater than from everything else. The problem has assumed greater proportions since the Spanish war; partly because the Army is larger, and partly because of the influx of many new officers and men and the abolition of the canteen. The rate of incidence before the Spanish war was from 70 to 80 per 1,000; it is now about 200 per 1,000. The situation in European countries is better than here; partly due to their frank handling of the subject and the application of restrictive measures. England is as reluctant to face the situation as this country, and therefore venereal infection is very prevalent in the British army. At one time the rate of incidence in the Indian army was 300 to 350 per 1,000; but their practice now is to cut the pay of men infected with venereal disease, and this measure, together with personal prophylaxis, has reduced the figures to 70 or 80 per 1,000. In our army, under the influence of prophylactic precautions, the incidence has dropped about 10 per cent., with the expectation that the figures for the next year will be even better since the adoption of better and more radical methods. With thoroughgoing inspection, lately instituted, statistics upon this subject will soon be obtainable. Experience shows that recruits are more apt to be infected than older soldiers, and, accordingly, recruit depots are the object of special attention in this regard. The Army has adopted the Navy method of inspection: examination of every man who reports exposure with an injection of protargol or argyrol solution and inunction with calomel ointment; lying about exposure, when detected at later examination, is punished by loss of pay. The moral effect of instruction and inspection, with propyhlactic treatment, proves beneficial in the military services in that the men seem to take a more serious view of the consequences of exposure and thus the number of exposures seems to materially reduced.

Dr. Woodward said that it will be a far day before the com-

munity will consent to be lined up for inspection as is done in the Army. So slow is progress in this matter, that there is as yet no effective movement looking to the reporting of venereal diseases with the name of the patient. In one California city venereal diseases are reported by street number for statistical purposes only. In Michigan the physician's report indicates the suspected source of the disease, and thus the venereal health of any given house can be known. St. Louis and Cincinnati have both tried registration and inspection with most discouraging results. In civil life, beyond the factor of non-efficiency, ethical and sociological factors enter into problems of the social evil. Education of the public is extremely important, but accompanied by many ethical difficulties; and from the ethical standpoint, education on the importance of avoiding infection is more important than education in methods of personal prophylaxis. From the sociological standpoint, the removal of certain causes that lead to promiscuous intercourse comes up for consideration; such as late marriages, and the economic conditions that make marriage only possible long after sexual capacity has reached full development. The social conditions that cause marriage to result in the cessation of economic independence of the woman, and the bearing of a double burden by the man, a burden increased by the birth of children, add to the problem the still further grave one of the limitation of offspring. These are questions that are pressing, and upon which the medical profession will soon be called upon to announce an opinion. It is time that physicians should become agreed as to these matters.

As to the application of typhoid prophylaxis to civil life, he wished he could agree with Dr. Reichelderfer that there is not likely to be much opposition to the use of antityphoid inoculations. Experience would indicate that it will be as great as the opposition to true vaccination and the use of diphtheria antitoxin, both of which expedients have the weight of so much convincing statistical evidence behind them.

Dr. E. L. Morgan said that it had not been many centuries since it was not thought proper for medical men even to treat venereal diseases. He referred to a statement of a physician early in the 19th century, quoted to him by Dr. Hagner, to the effect that physicians should not treat venereal diseases because thereby they relieved distress rightly incurred. Dr. Morgan had been much interested in the paper and the discussion. The whole drift of both had been toward the proposition that we must frankly face this matter, discuss it openly and freely, and by active methods seek to remedy the evil. It had been his privilege to urge this course upon the profession time and again; for no one could deny that the old attitude of ignoring the question, or of seeking to prevent the ravages of the evil by moral counsel, had been a dismal failure.

Dr. Macatee called attention to a newspaper item to the effect that the priests of the Armenian church have been forbidden to perform the sacrament of marriage without previously obtaining certificates of good health from the contracting parties.

Dr. S. S. Adams said that it would appear that the Greek letter societies have taken the matter up; for he had received a letter from such a society in a northern college asking him if he had ever treated a certain young man for venereal disease; it appeared that admission to this society was conditioned on freedom from venereal infection.

Dr. Hagner said that Dr. Morgan's reference to a quotation attributed to him was based on a report of the transactions of an English medical society in 1840, which recorded the report by a Dr. Smith of a series of cases of gonorrhoeal epididymitis treated by operation with early recovery; he was opposed in the society on the ground that the victims of this disease ought not so soon to be returned to society.

It seemed to Dr. Hagner that most of the efforts to control the social evil ignore the fact that the sexual instinct is the strongest passion in human nature. Some men have the sexual hunger so strong that it exceeds the strength of the hunger for food. Such men cannot be restrained by moral suasion, by legal injunction, or by fear of infection. He believed that the dissemination of knowledge of methods of personal prophylaxis after exposure is a step in the right direction. He recognized the difficulty if not futility of regulating this evil by the inspection of prostitutes under old methods; it seemed to him, however, that the propagation of syphilis might be stopped in some measure by the systematic testing of prostitutes for the Wassermann reaction and the administration of 606 to those who give a positive reaction.

Dr. Kober said that the public at large is taking up the subject of the social evil, as was evidenced by the fact that he had within a week received invitations to speak upon this subject before two labor organizations. The Society could profitably spend a number of evenings in the consideration of this subject.

While it is true that the sexual passion is strong everywhere, it would seem to be especially strong in the American and English armies, because these two organizations give the largest rates of incidence of venereal diseases in the world. This must be due to the fact that it is in these two nations that the whole subject has been most sedulously ignored and public education as to the facts has been most persistently neglected. That public education and prophylactic measures will do much good has been amply demonstrated by the evidence obtained in the military establishment. And education of the men has had the effect of diminishing exposures, contrary to predictions; many controls have established the fact that the sailors and soldiers do not conceal the disease and that exposures are duly reported. Medical men must take

their share in doing this work of public education, otherwise it will become a layman's movement, a situation much to be deplored.

Unless the lessons taught by the experience of the army in the use of antityphoid vaccines are utilized by the application of the method of prophylaxis to civil life much will be lost in every way, and the economic loss hardly can be computed. He felt sure that such a valuable advance in medical knowledge will be applied actively to the control of the general typhoid situation and it is our duty to suggest it at once.

He felt that much of the credit for the army showing in typhoid prophylaxis, which grew out of its compulsory application, was due to Maj. Russell's work along this line.

Dr. Reichelderfer expressed his thanks for the generous discussion accorded his paper.

THE LANE OPERATION FOR CHRONIC CONSTIPATION, WITH REPORT OF TWO CASES. ABSTRACT.*

By George Tully Vaughan, M. D.,

Washington, D. C.

Mr. Lane gives many symptoms which may result from chronic constipation or chronic intestinal stasis. In the first place the patients are more frequently women—often women who have lost much flesh and strength or who have the anatomical type which predisposes to visceroptosis. Pain in the region of the stomach, appendix or right kidney, caused by traction of the prolapsed or distended organs, flatulence and indigestion. Lane believes that cystic disease of the ovaries and breasts may occur with the usual symptoms indicating such disease.

Probably the most serious symptoms arise from the absorption of toxins and their effects on the nervous system especially. These are faintness, giddiness, neuralgia, headache, mental depression and depreciation, abnormal drowsiness, change in disposition, abnormal irritability and loss of control over one's temper. Other symptoms are loss of fat, coldness of hands and feet, pigmentation or dirty color of the skin or conjunctiva, and sometimes a bad odor from the skin or perspiration. Complications of an acute or chronic character are liable to occur, such as volvulus, gallstones, ulcer of the stomach or duodenum; and a predisposition is created to such general diseases as tuberculosis, gout, rheumatism

* Read before the Medical Society, October 4, 1911.

and arteriosclerosis. Mr. Lane has described certain contractions of the tissues which produce sharp angulations of the hepatic and splenic flexures of the colon and especially a kink in the ileum about two inches from the caecum—the " Lane kink." The cause of this kink or sharp angle is the pull of the overloaded caecum which drops into the pelvis, making traction both on the ileum and appendix, which bend sharply at their fixed parts, and symptoms appear indicating more or less obstruction of these two organs.

It had long been suspected that certain changes in the colon caused constipation, and many of us who have operated on the colon for malignant disease, etc., have been impressed with the tendency to diarrhoea which follows its removal. Therefore the thought naturally occurred that constipation might be cured by removal of the colon.

Lane's first operation was for pain in the caecal region, and consisted in making a lateral anastomosis between the ileum and sigmoid. Later he divided the ileum, and was struck with the disappearance of the toxic symptoms after excluding the colon from the fecal current.

Dr. Vaughan reported two cases on which he had operated.

Case 1. Woman, age 33, who ever since childhood had been troubled with constipation and abdominal discomfort. As she grew older she suffered much from abdominal pain, especially in the region of the pylorus, became nervous and began to have abdominal " spells." Was very nervous, irritable, appetite poor, and never had a bowel evacuation without an enema or a purgative. Said she was miserable all the time and especially dreaded the abdominal " spells."

It was evident that the patient was a victim of visceroptosis and of dilated stomach with chronic constipation and resulting autointoxication. It was thought best to operate with a view of doing either a gastroenterostomy for the dilated stomach or a Lane operation for the chronic constipation. The operation was done November 30, 1910. The stomach had the appearance of an hour-glass contraction, due to peristaltic contraction which continued for some time, sometimes forming two, sometimes three pouches. Finally relaxation took place and the stomach was seen to be quite large, its lower border extending below the navel. All the colon, with the exception of the caecum and sigmoid, was in the pelvis with the small intestine. The ileum was divided two inches from the caecum, the caecal portion closed with purse-string suture, and the other end was joined end to side with the upper part of the rectum. From this operation the patient recovered without incident. There was never any diarrhoea in her case, but now and then a tendency to constipation. She improved in every way. In June, 1911, she observed an enlargement of the right side of the abdomen. Examination easily convinced one that there were hard masses in the colon. They were not pain-

ful, but the patient began to worry over their presence and it was decided best to complete the operation now and remove the colon. This was done July 5th, the entire large bowel being removed to within about three inches of the junction with the ileum. From this operation the recovery was prompt.

In a letter received nearly three months after the last operation she informs me that she is sometimes troubled with gas in the stomach, but that the nervousness and constipation are much better, though the constipation is not yet entirely relieved; she has fattened twelve pounds, and is generally a great deal improved in health.

Case 2. A woman, age 42, who had been operated on for hepatoptosis nearly three years before and was not much benefitted. She was very thin and still suffered with dragging sensations in the abdomen, nausea, occasional vomiting, cold extremities, and nervousness, with spells in which she felt as if her legs could not support her, as though her hips were coming apart.

May 8, 1911, she was again subjected to operation. The liver was found still in the position in which it had been anchored. The stomach was low and the greater part of the colon was in the pelvis. The ileum was divided, both ends closed and a side-to-side union was made with the upper part of the rectum. Recovery was prompt and improvement almost immediate. She was out of bed in three weeks and at first was troubled with diarrhoea, but this was controlled by regulating the diet and soon the passages became normal, appetite was better, she gained in weight and there was general improvement in every way when she left the hospital five weeks after the operation.

Dr. Balloch said that man can get along very well without his stomach, or his gallbladder, his spleen or his appendix, and one should not be surprised to hear that the colon is of no use, but after all it is rather startling to consider under what an incubus of useless organs man appears to labor in the light of modern surgery.

As to the operation described and performed by Dr. Vaughan, the actual surgical procedure presents no difficulties; but what are the exact indications for it and what will be the end results? When, as Lane suggests, the medical man is willing to say that he can no longer afford any hope of relieving the habitual constipation, then surgery is justifiable. It surely seems better to lay the plan of surgical restitution of parts or ablation of obstacles before the patient than to condemn him to a life of cathartics, enemata, etc. So many cases of constipation are due to dislocation of the internal organs that it is only logical to restore the ability to maintain fecal circulation in the intestines if this can be done.

As to the end results, it seems settled that the colon can be removed without great danger, that it is solely a depositary, and that the ileum and rectum can successfully take up its function.

He was surprised to hear that constipation persisted in Dr. Vaughan's first case; it had seemed to Dr. Balloch impossible. He was in accord with Dr. Vaughan's conclusions. He felt that cases should be selected with great care.

Dr. Wellington had not seen the Lane operation performed; was much interested in Dr. Vaughan's cases. We know that the fecal material is fluid in the ileum, and if it can be emptied into the rectum in that state, constipation should be cured; the Lane operation seems to accomplish this result. Dr. Wellington had been interested in a suggestion to modify the Lane operation by performing an ileo-sigmoidal anastomosis and doing an appendicostomy at the same time, leaving the colon *in situ,* and utilizing the appendicostomy opening for periodical flushing of the colon if necessary.

Dr. L. H. Taylor said that Dr. Wellington's remarks induced him to speak of a patient with intestinal obstruction upon whom an intestinal anastomosis had been done; the obstruction was not relieved and a colostomy was necessary. Later Dr. Taylor performed a side-to-side anastomosis of ileum to colon, with an appendicostomy to insure flushing of the colon; but this procedure was a failure, irrigation could not be successfully given, and later another operation, with removal of a large part of the colon had to be done. The patient finally recovered.

Dr I. S. Stone said that the discussion of an operation for the relief of a train of symptoms would take up much time. From the standpoint of selection of cases one would hardly know where to begin, for Lane proposes by his operation the relief of an immense number of symptoms, and it would seem that to the colon was left the making or the breaking of the human economy. Since Metchnikoff has said so much about toxic absorption from the colon and its relation to old age, it is a wonder that Lane or someone else had not advocated the extirpation of the colon earlier. It is distinctly complimentary to American surgery that Lane should have found it desirable to come to America, with its alert, progressive, openminded surgeons, first to propagate his idea. But his idea was not merely to cure constipation, but with it to relieve many other symptoms; and are not prolapsed kidneys, gastroptoses, and other visceroptoses concerned in the production of allied symptoms, and are not other surgeons busy trying in one way or another to overcome these difficulties, and have not all achieved a measure of success for certain indications? It seemed to Dr. Stone that Lane is attempting to cure too much with one operation. Careful study of each case is necessary to discover the origin of symptoms, and then it may appear that one of many different operations will be best adapted to effect a cure.

Dr. W. F. Hemler had used enemata of two ounces of olive oil or less in about fifty cases of constipation. The oil is injected at bedtime and allowed to remain in the bowel all night. It must

be used every night persistently for a long time (for at least three weeks) before much benefit is noticed. Some patients have to use it indefinitely, but it is perfectly bland and unirritating and becomes more effective in the same dosage the longer it is used. He was led to its use on account of the marked benefit obtained by a member of his own family, to whom it had been suggested by a lay friend. Kussmaul and a number of other Germans use the remedy, but in larger doses and at longer intervals. The most obstinate cases are usually the most benefitted, because such patients are willing to give the remedy a fair trial. It was also used in the same manner in a case of chronic dysentery of twenty years' standing. The number of stools was reduced from about eight or ten a day to one or two which became apparently normal in character. This patient becomes worse again when she discontinues the use of the oil, but feels perfectly well as long as she uses it. Dr. Hemler would like to hear from others who have used olive oil in this way.

Dr. Jack said that in Lane's original article he speaks of the difficulty of making end-to-end anastomoses; this can be entirely overcome by the use of the Parker-Kerr suture.

Dr. Tom A. Williams said that the necessity for operative relief of one kind or another for chronic constipation was especially marked in some of the psychasthenics who came under his care. Such patients are habitual users of purgatives and thus the tone of the bowel is further reduced, and out of this arises constant stasis and constant absorption of proteolytic substances. Another method of treatment, however, is to deprive these patients of those articles of diet which yield these proteolytic substances; even if the constipation is not relieved, the symptoms of absorption are relieved. He commended the old Italian recipe for attaining old age: "Cease worrying and eat farinaceous food."

Dr. Vaughan had not much to add. He had been interested in the remarks made in discussion. As Dr. Balloch had suggested, the incomplete relief of constipation in the first patient was an interesting fact. For eight months after the first operation she was constipated and had to use enemata. And even now, after removal of the whole colon, she uses enemata occasionally. In every case, heretofore, where he had removed the colon or part of it, there had been transient diarrhoea. Of course, the Lane operation is not to be done every day, and all medical remedial measures should be tried first.

Not the First.—A reporter was interviewing Thomas A. Edison. "And you, sir," he said to the inventor, "made the first talking machine?" "No," Mr. Edison replied. "The first one was made—long before my time—out of a rib."

BENZIDINE TEST FOR OCCULT BLOOD IN THE STOOL. AUTHOR'S ABSTRACT.*

By J. Russell Verbrycke, Jr., M. D.,

Washington, D. C.

This paper is based upon 331 tests made on 242 patients. The writer wishes to show how easy it is to make the test, to argue against some of the objections which have been raised against it, and to plead for its more general use.

The author uses a technique nearly like that of Schlesinger and Holst, but employs a more dilute mixture of the feces and water and a larger proportion of the reagents. The test is first made with the patient on his regular diet, containing meat, and if this is positive, and there is a suspicion that the reaction may result from the presence of the haemoglobin in the meat eaten, the patient should then be put on a lacto-vegetarian diet for several days, and the test repeated. This in the large majority of cases was not found necessary, in using this technique, as most of the 219 negative reactions obtained out of the 331 tests were made with the patient eating as usual.

One hundred and twelve positive reactions were obtained in 88 patients, and for the most part were what would be expected from the clinical consideration of the cases. Those cases, not of ulcer or cancer, which caused occult bleeding, with the resultant positive benzidine test, as colitis, hemorrhagic gastritis, severe anemia, etc., could easily be differentiated. Eighteen miscellaneous cases gave positive reactions when blood was not present from the digestive tract, and these resulted from the haemoglobin in the animal food eaten. Negative results were later secured in all those who took a lacto-vegetarian diet for two days.

The test has been found of great value in the diagnosis of ulcer and cancer, and is also a good guide to the effects of treatment in the former. One or more negative tests are almost conclusive in ruling out cancer, and the same may be said of repeated tests under varying conditions in ulcer. A rough cellulose diet will often cause subsequent tests to react positively where before the tests had been negative.

While the author's results differ somewhat from those of other observers, he feels that the considerable number of tests made, and the findings being so consistent with what was to be expected clinically, warrant him in making this report and continuing with the same technique.

Dr. Nichols expressed his appreciation of the paper. The results derived from such a large series of cases should have considerable validity. The test seemed to him to be rather too deli-

*Read before the Medical Society, October 18, 1911. The complete article will appear in the December number of *International Clinics*.

cate; there seemed to be too large a proportion showing positive, in cases in which bleeding should not occur. Boiling the extract of the stools to destroy and oxidise ferments is recommended as preventing false results. In his own practice he controls the benzidine test with the guaiacum test. The phenolphthalein test has been highly recommended, but he had been unable to apply it to stools.

Dr. Mallory expressed his pleasure at hearing the paper and to learn of a method by which the benzidine test can be used with so much facility. He hardly agreed with Dr. Nichols in the opinion that if a positive benzidine test is negatived by the guaiacum test, blood may be regarded as absent from the material examined; he had found several cases to the contrary, where the findings of the benzidine test were confirmed by operation. The routine employment of the benzidine test would result in the early treatment of many more cases of gastric and duodenal ulcer than are now recognized. He suggested the use of alcohol as a solvent for the reagent as more convenient than acetic acid as used by Dr. Verbrycke.

Dr. Verbrycke said that it seemed to him that the delicacy of the benzidine test constituted its superiority over the guaiacum test; if the guaiacum test needs to be used as a control, he saw no good reason to use the benzidine test at all. Those cases in his series in which there was no ulcer or cancer did have other conditions which caused blood to appear in the stools, such as proctitis, gastritis, etc. The usefulness of the benzidine test is its great delicacy. He was interested in Dr. Mallory's suggestion to use the benzidine in alcohol and he proposed to try the method.

CASE OF FOREIGN BODY IN THE ESOPHAGUS.*

By W. A. Wells, M. D.,

Washington, D. C.

About ten years ago I reported before this Society a case in which a safety pin became inspirated into the larynx, and could just be seen, by laryngoscopic examination, immediately below the vocal cords. On account of its position, with the point upward, it was impossible to remove it through the mouth by any method at that time at our command, and it became necessary, therefore, to open the larynx from the outside. A laryngo-tracheotomy was done, and the pin was easily extracted through the wound,

* Reported to the Medical Society, October 25, 1911.

after which the patient, a girl twelve years of age, made a complete and rapid recovery without any injury to her voice.*

The case that I wish to report now is similar in the fact that we had to deal with an open safety pin, and that it was placed with the point upward. It differed, however, in being in the esophagus instead of the larynx, and in not requiring an external operation for its removal. The patient this time was a little baby boy, W. F., only ten months old. On Saturday morning, October 7, according to its mother, the child suddenly began to cough and choke. Some safety pins were near, and the true cause was at once suspected. An x-ray picture was taken which confirmed the suspicion and showed the location of the pin.

Some attempts had been made to remove the pin, without success. I did not see the child until Tuesday, October 10, when I met Dr. L. D. Savage, the family physician, by appointment, at the George Washington University Hospital. I decided to attempt removal through the oral route, and went prepared with instruments for removal with the aid of esophagoscopy, but placing first my left forefinger deeply in the throat I found I could detect the upper part of the pin. I concluded therefore to remove it without use of the direct illumination, trusting to the sense of touch. It was evident that before it could be successfully extracted, it would be necessary to completely reverse the position of the pin, so that the point would be turned downward instead of upward.

Instead of the usual laryngeal forceps, a long, curved hemostatic forceps was selected. When the pin was once securely seized the blades were locked; this done it was not a difficult matter to free the point and, by turning the forceps, reverse its position, so that it could be drawn out with its point downward.

Attention is called to the two x-ray plates taken by Dr. Thos. Groover. The position of the pin is clearly to be made out in both; but in the smaller plate one can be easily misled in supposing the foreign body to be located higher in the throat than it really is. This is due to the fact that while the picture was being taken the subject could not be kept from squirming, and the chin was at the time considerably flexed on the chest. A comparison, however, with the vertebrae shows the true situation of the pin, which is clearly opposite the second to sixth cervical vertebrae. In other words, it is lodged in the introitus esophagi, at the place of the first constriction.

It would have been unfortunate for the surgeon as well as the child to have been compelled to cut from outside in this case, as the little subject had a very short, fat neck, that would have rendered external operation more than ordinarily difficult.

---

* *Virginia Med. Semi-Monthly*, 1900-1, V, p. 629.

Dr. Savage had seen this baby soon after the accident; the mother was bathing and dressing it early in the morning; a number of safety pins were lying about; she observed that it suddenly began to cough and gag, but thought she could account for all the pins; but when the baby attempted to nurse, it stopped nursing and began to cry. The conclusion was reached that one of the pins was in its throat, and Dr. Savage at once brought the child to the city for an x-ray examination; the attempt to take a radiograph was, however, unsuccessful, and had to be abandoned for the time. Meanwhile the baby seemed to be quite comfortable and no haste seemed necessary; accordingly it was simply kept under observation. Some symptoms continuing, an x-ray picture was finally obtained, the pin disclosed, and the child referred to Dr. Wells, with the results reported by him.

Dr. D. S. Lamb exhibited an iron staple, one inch long, which had been presented to the Army Medical Museum by Dr. W. O. Owen, U. S. Army, who removed it from the esophagus of a four months' old infant. The staple had lodged just below the level of the larynx with the points up, and Dr. Owen had removed it with a pair of curved forceps on one point and his finger on the other.

Dr. Mallory reported a case in contrast to that of Dr. Wells. A lady in Virginia had swallowed a fragment of chicken bone; a physician who was sent for merely reassured her and told her that everything would be well. But things did not go well, and a second physician was summoned; he administered an emetic with the result that she vomited with violence and expelled portions of several chicken ribs. The pain under the sternum persisted and she was referred to Dr. Mallory for treatment. Two courses of procedure were open: to use the esophagoscope and determine whether any fragments of bone remained in the esophagus; or to treat her expectantly on the idea that the pain was occasioned by the traumatism of the esophagus. The latter plan was pursued and the lady uneventfully recovered. The two points in contrast with Dr. Wells' case were: the carelessness of the first physician in not appreciating the gravity of the case, and the recklessness of the second in giving an emetic, for this procedure might have given rise to perforation of the esophagus, or to such severe traumatism that cicatricial stricture might have ensued.

Dr. B. G. Pool reported the case of a child, one year old, who swallowed a safety pin, and whose mother, in a frantic effort to recover it, pushed it further down; the next day the child vomited the pin without ill result.

Dr. T. C. Smith humorously reported the case of a child who swallowed a rubber nursing nipple. He prescribed some peppermint water and a simple syrup and waited results; the next day the nipple was found upon the floor—it had not been swallowed.

Dr. Wells said that many ingenious instruments had been devised for removing foreign bodies from the esophagus and trachea; one of these, recently described in one of the journals, was a safety-pin closer; this instrument would not have been applicable to his case because when the pin was removed it was found that the clasp was in such condition that the pin would not close.

REPORT OF THE COMMITTEE ON PUBLIC INSTRUCTION IN MEDICAL MATTERS.*

On October 4, at the first meeting of the newly organized Medical Society of the District of Columbia, the president appointed a committee to report at the meeting of October 11 a plan for the furtherance of the education of the public in matters regarding its relationship to the medical profession, more particularly as concerns its own health.

Being unable to agree upon any one plan as the best, we hereby submit for the consideration of the Society the three following proposals:

(1) That the Society organize one, two or more public lectures at which some eminent speaker should present in an authoritative way suitable subjects relating to the public health.†

(2) That the Society maintain a committee the duty of which should be to supervise as far as possible items appearing in the public press bearing upon medical matters, to the end that such published articles might be correct and proper.

(3) That a committee be appointed to keep before the public by periodical bulletins in the local press the true facts about those medical questions upon which the public desires information which at present it often receives in a grossly inaccurate and interested fashion.‡

Naturally this committee, by medium of the permanent officials of the Society, could be in touch with those editors who desire speedy and authentic information when interest is excited about matters which the medical profession is in the best position to clarify. In this way, without assuming the powers of press censors, which journalists might resent, the advisory function of the Medical Society would have great opportunity of exercise. While in this proposal there is no plan for public lectures, yet upon resolution of the Society this function could be readily assumed by such committee were it desired. It is felt by many that this step is hardly expedient at the present time, while it is felt by nearly

* Reported to the Medical Society, October 11, and ordered to be printed.

† Since this report was made it is learned that a propaganda similar to the first method suggested has been successfully put in operation by the Woman's Clinic of this city.

‡ The editors who were approached after the International Tuberculosis Congress were very cordial to this plan, believing that clearly-written bulletins would be welcomed by their readers.

everybody that something ought to be done to extend the influence and prestige of our profession in the body politic, and to minimize the evils wrought to the public by the state of physiological ignorance which makes it such ready prey to the pretensions of the charlatan.

Work of this kind has been done during the last three years in Baltimore with great success. Many other cities have recently also taken up the work. The American Medical Association itself has organized an educational propaganda of this kind. The influence of such work in the legislative capital would be enormous, and it would be a pity to lose such an opportunity to signalize the first session of our reorganized medical body.

The committee will welcome other proposals from members who will be kind enough to submit them in writing, if possible, before November 20th.

(Signed) Tom A. Williams,
Noble P. Barnes,
Walter A. Wells.

Dr. A. Jacobi.

October 4, 1911, the Medical Society adopted the following preamble and resolution:

"*Whereas*, At the recent meeting of the American Medical Association, held at Los Angeles, Cal., Dr. Abraham Jacobi, of New York City, was elected President of the Association, and

"*Whereas*, Dr. Jacobi is an honorary member of this Society; therefore,

"Resolved, That this Society extends to Dr. Jacobi its congratulations upon the high honor conferred on him, and directs the Corresponding Secretary to notify Dr. Jacobi of this action."

The Corresponding Secretary received the following reply:

"New York City,
"*19 East 47th Street, October 8, 1911.*

"Dr. Thomas C. Smith, *Secretary*,

"Dear Doctor:—Please express my most sincere thanks to the Medical Society of the District of Columbia for the kind words sent me through you. I wish I could succeed in proving by my own endeavors that I mean to deserve the honor conferred upon me. It is a difficult task, but our profession merits and demands our most strenuous efforts.

"Very sincerely and gratefully,
(Signed) "A. Jacobi."

Dr. H. W. Wiley.

The following resolutions were adopted by the Medical Society, October 11, 1911.

"While in common with many other scientific bodies, and with the American people in general, we, the members of the Medical Society of the District of Columbia, have been deeply interested in the recent investigation of the work of Dr. Harvey W. Wiley, Chief of the Bureau of Chemistry in the Department of Agriculture, in his efforts to secure the enforcement of the Pure Food Regulations, etc.; and while Dr. Wiley is personally known to many of us as 'a man resolved and steady to his trust, inflexible to ill, and obstinately just;' therefore,

"*Resolved:* 1. That we heartily rejoice that Dr. Wiley has been completely exonerated from any alleged wrong-doing, and that his methods and principles have been fully vindicated;

"2. That we extend to Dr. Wiley our sincere congratulations, and

"3. That we beg to present to the President of the United States our grateful and humble commendation for the justice, wisdom and impartiality displayed in his settlement of the dispute, a commendation which we believe is enthusiastically shared by the entire American people."

(Signed) "A. F. A. King,
Thomas N. McLaughlin,
Geo. M. Kober."

The following replies were received by the Corresponding Secretary:

"The White House,
"*Washington, October 21, 1911.*

"My dear Sir:

"Your letter of the 20th instant transmitting a copy of the resolutions passed by the Medical Society of the District of Columbia commendatory of the President's action in the Wiley case has been received and I will have pleasure in forwarding it to the President, in whose behalf permit me to thank you for your courtesy in the matter.

"Very truly yours,
(Signed) "Rudolph Forster."

"Cosmos Club,
"*Washington, D. C., October 21, 1911.*

"Dear Dr. Smith:

"I am just in receipt of your note of the 20th instant transmitting to me the resolutions passed by the Medical Society of the District of Columbia congratulating me on my vindication from the charges which had been made against me in the Department

of Agriculture. I need not assure you that among all the congratulatory messages that I have received none is more appreciated than this action of my medical brethren in this city. The saying that 'a prophet is not without honor save in his own country' does not hold here. Being personally acquainted with large numbers of the members of the Society makes this mark of confidence all the more grateful.

"I beg to thank you and, through you, the Society for this mark of their cordial esteem.

"I am, faithfully,

(Signed) "H. W. WILEY."

PROCEEDINGS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Wednesday, October 4, 1911.—The President, Dr. W. M. Barton, presided; about 110 members present.

The Treasurer presented his report for June to September, showing: Receipts, $380.00; disbursements, $469.79.

Dr. D. S. Lamb offered the following, which was unanimously adopted:

"*Whereas*, At the recent meeting of the American Medical Association held at Los Angeles, Cal., Dr. Abraham Jacobi, of New York City, was elected President of the Association, and

"*Whereas*, Dr. Jacobi is an honorary member of this Society; therefore,

"RESOLVED, That this Society extends to Dr. Jacobi its congratulations upon the high honor conferred on him and directs the Corresponding Secretary to notify Dr. Jacobi of this action."

Upon motion of Dr. G. Wythe Cook, the Recording Secretary was instructed to inform the Secretary of the American Medical Association of the reorganization of this Society, of the name adopted, of the manner in which the reorganization was effected, and to forward a copy of the recently adopted constitution for the further information of the American Medical Association's officers.

Dr. A. F. A. King moved that a committee of three be appointed by the President to report at the next meeting resolutions of congratulation to Dr. Harvey W. Wiley upon his recent vindication by the President of the United States. The motion was carried, and the Chair appointed Drs. A. F. A. King, McLaughlin and Kober.

The Chair announced the following committee appointments:

On Program: Drs. T. C. Smith, E. B. Behrend, Borden, J. D. Thomas and C. S. White.

On Publication: Drs. D. S. Lamb, Nichols, B. G. Pool, Donnally and Prentiss Willson.

Censors: Drs. Balloch, L. A. Johnson, G. Brown Miller, Reichelderfer and Wellington.

On By-Laws: Drs. Nichols, Van Rensselaer and J. D. Thomas.

Dr. Hasbrouck introduced Dr. Guy W. Latimer, of Hyattsville, Md., who, representing the Prince George County Medical Society, asked if it would be possible for that organization to affiliate with the Medical Society of the District of Columbia to the extent of attending its scientific meetings; in order that the affiliation desired might be of no expense to this Society he merely requested that the Corresponding Secretary send notices of the meetings to the Secretary of the Prince George County Medical Society.

Dr. A. B. Hooe moved that the Corresponding Secretary be instructed to invite the members of the Prince George County Medical Society to attend the scientific meetings of this Society, by sending notices of meetings to the Secretary of the Maryland organization. Dr. Nichols moved to amend Dr. Hooe's motion by adding, "and that the Corresponding Secretary advise the members of the Prince George County Medical Society of their privilege of applying for associate membership in this Society if they so desire." The motion as amended was carried.

Dr. Latimer thanked the Society for its courtesy to his organization.

Dr. Tom A. Williams moved that the President appoint a committee of three to devise and report to the Society a plan for utilizing the resources of the organization for the proper and authoritative education of the public through such medium as may seem best. Carried. The Chair appointed Drs. Williams, Barnes and Wells.

Dr. G. Tully Vaughan read a paper upon Lane's operation for the cure of chronic constipation, with report of two cases. Discussed by Drs. Balloch, Wellington, L. H. Taylor, I. S. Stone, Hemler, T. A. Williams and Vaughan. See p. 266.

Dr. D. Olin Leech reported a case of Keloid, and presented a specimen of this tumor, with the patient from whom the specimen had been removed. Discussed by Drs. Wellington, Abbe, Vaughan and Leech.

Dr. D. S. Lamb presented a specimen of Tumor of the male breast. Discussed by Drs. Vaughan and D. S. Lamb. See p. 250.

Wednesday, October 11.—The President, Dr. Barton, presided; about 100 members present.

Dr. A. F. A. King, for the committee appointed October 4, reported resolutions commendatory and congratulatory to Dr. H. W. Wiley, which were adopted. See p. 277. The Corresponding Secretary was directed to send copies of the resolutions

to Dr. Wiley, to the President of the United States, to the *Journal A. M. A.* and to the Associated Press. See p. 277.

Dr. Tom A. Williams, for the Committee on Public Instruction appointed October 4, reported that the committee had been unable to formulate definite recommendations as yet, but that it seemed desirable to submit to the vote of the Society three alternative plans. He presented the advantages and disadvantages of the various plans and asked that the Society express its wishes in the matter. The Society directed that the report be reduced to writing and published in the ANNALS, action to be taken thereupon at the meeting next following the publication of the November ANNALS. See p. 275.

A communication was read inviting the members to attend the meetings of the Eighth International Congress of Applied Chemistry, September, 1912. The Secretary was instructed to acknowledge the invitation, with the thanks of the Society.

Dr. John D. Thomas reported a case of Syringo-myelia, and exhibited the patient; Dr. Tom A. Williams reported a case of the same disease. Discussed by Drs. Williams and Groover.

Dr. Jas. F. Mitchell read the paper for the evening; subject: Acute hypertrophic pyloric stenosis of infants, with report of two cases. He exhibited one of the patients. Discussed by Drs. Vaughan, Wellington, Carr, S. S. Adams, Moran and Reid Hunt.

Wednesday, October 18.—The President, Dr. Barton, presided; about 75 members present.

The Chairman of the Committee on Publication, Dr. Lamb, for the committee, stated that publication of the WASHINGTON MEDICAL ANNALS was begun in 1902, when the membership of the Society was 280; at that time the committee was limited to an expenditure of $600.00 per annum; since then the Society has increased to more than double the number, namely, 578, thus increasing the size and number of each edition of the ANNALS, while at the same time the cost of printing has advanced, but the allowance is still $600.00. The material available cannot now be published in proper manner unless the financial limitations are made less exacting. The committee desired instructions from the Society upon this point.

On motion of Dr. Chappell the Society gave the committee *carte blanche* to publish the next three numbers of the ANNALS according to the best judgment of the committee, in order that experience may show what definite action will be necessary.

Dr. S. S. Adams, for the committee on memorial to Dr. C. V. N. Callan, stated that after faithful but fruitless efforts to secure information as to Dr. Callan's history the committee felt unable to make a report, and asked to be discharged. Some suggestions being made as to possible sources of information, the committee was continued.

The death of Dr. Camillo H. Machinek was announced by the Chair, with the statement that a memorial committee would be announced later.

The Committee on By-Laws was instructed to consider what procedure shall be followed by the officers in making up the membership roll and what instrument shall be signed by present or future members.

Dr. Henning read a paper entitled, Differential diagnosis of ocular and nasal accessory-sinus headache. Discussed by Drs. Wells and Henning. See p. 239.

Dr. Verbrycke read a paper entitled, The benzidine test for occult blood. Discussed by Drs. Nichols, Mallory and Verbrycke. See p. 271.

Dr. Hickling read a report of the psychopathic work at the Washington Asylum Hospital for the year ending June 30, 1911. Discussed by Drs. Lee and Kober. See p. 245.

Wednesday, October 25.—The President, Dr. Barton, presided; about 90 members present.

The Corresponding Secretary read (1) a letter from Dr. A. Jacobi thanking the Society for its resolution of congratulation upon his election to the Presidency of the American Medical Association; (2) a letter from the Secretary of the President of the United States acknowledging receipt of a copy of the resolution of this Society commendatory of Dr. Wiley and of the action of the President in the Wiley matter, and (3) a letter from Dr. Wiley thanking the Society for the resolutions of congratulations to himself. See pp. 276 and 277.

The Recording Secretary was instructed to forward a letter certifying to the membership in this Society of Dr. W. A. Ruble, in order that he might be transferred to the San Bernardino County (Cal.) Medical Society, and also a certificate of membership to Dr. P. R. Terry.

A letter from the Society of Ophthalmologists and Otologists, of Washington, D. C., was read, requesting permission to withdraw that Society's application for admission as a section of this Society. The Secretary was instructed to return the application as requested.

It having appeared that certain associate members, whose membership in this Society was derived from their associate membership in the Medical Association of the District of Columbia, had been notified by the American Medical Association that they are not eligible for membership in that body, the Committee on By-Laws was instructed to consider their status and report what action, if any, can be taken for their relief.

A request having been received from the American Medical Association for the appointment of a member for its Committee on Medical Legislation, Dr. John D. Thomas was elected to that office.

Dr. S. R. Karpeles read a paper on Pellagra, with report and photographs of a case. Discussed by Dr. T. A. Claytor. See p. 252.

Dr. Frank Leech presented a specimen of Tumor of the mediastinum from a child of four years, with report of the case, together with autopsy and pathological findings. Discussed by Drs. Randolph, Carr and Frank Leech.

Dr. Wells reported a case of Successful removal of a safety pin, with point up, from the esophagus. Discussed by Drs. Savage, D. S. Lamb, Mallory, Pool, T. C. Smith and Wells. See p. 272.

Dr. Reichelderfer read a paper on Military prophylaxis, typhoid and venereal. Discussed by Maj. Russell, U. S. A., Drs. Woodward, E. L. Morgan, Macatee, S. S. Adams, Hagner, Kober and Reichelderfer. See p. 254.

WASHINGTON MEDICAL ANNALS.

Journal of the Medical Society of the District of Columbia.

Published Bimonthly by the Society, at No. 2114 Eighteenth Street, N. W., Washington, D. C. Subscription price, including postage, $1.00 per year, in advance. Single copies, 20 cents. Advertising rates given on application.

COMMITTEE ON PUBLICATION.

D. S. LAMB, A. M., M. D., *Chairman and Editor*, 2114 Eighteenth St., N. W.

Associate Editors.

J. B. NICHOLS, M. D., . . . 1321 Rhode Island Avenue, N. W.
B. G. POOL, M. D., ... 945 Rhode Island Avenue, N. W.
H. H. DONNALLY, M. D., A. M., B. S., . . 1612 I Street, N. W.
PRENTISS WILLSON, M. D., ... The Toronto.

Editorial.

History of the Medical Society of the District of Columbia — This book should be in the hands of every member of the Medical Society. The price is only $1.00, with 25 cents added if delivered in this city or sent by mail. Address Dr. C. W. Franzoni, 605 I Street, N. W. The work contains, as the title indicates, a history of the Society, and a series of 929 biographical sketches of members. There are also 79 full-page photo-engravings of the places of meeting and of the members, besides several interesting tables and an appendix. The books are in the custody of Dr. D. S. Lamb, at the Army Medical Museum.

Members of the Medical Society who have changed their addresses since May, 1910, when the last list of members was published, will please send their new addresses to the Chairman of the Committee on Publication, 2114 Eighteenth Street, N. W., in order that the correct addresses may appear in the revised list in the January issue of the Annals.

The Medical Association of Georgia has begun the publication of a State journal, beginning with August, 1911. Nearly all the State associations are now publishing their own journals; the more reason why this Society should continue to publish its journal.

The Association of Agricultural Chemists held its 28th annual convention in Washington, Nov. 20 to 22. Dr. H. W. Wiley is the Secretary.

The 7th Tuberculosis Congress will meet in Rome, Italy, in April, 1912.

A New Journal entitled *Successful Medicine* has appeared, published by Dr. Henry R. Harrower, 60 West Randolph St., Chicago. Dr. Harrower is also the publisher of the *Journal of Physiologic Therapeutics.*

The Southern Surgical and Gynecological Association, Dr. Rudolph Matas, of New Orleans, President, and Dr. W. D. Hazen of Nashville, Secretary, will meet in Washington, Dec. 12 to 14.

The American Association for the Advancement of Science will meet in Washington Dec. 27 to January 1. Chas. E. Bessey, of the University of Nebraska, is President. Among the Vice Presidents of Sections is Frank K. Cameron, of the Dept. of Agriculture. L. O. Howard is the Permanent Secretary. Theodore S. Palmer, of the Dept. Agriculture, is Secretary of the Council. R. S. Woodward, of the Carnegie Institution, is Treasurer. Many members of the Medical Society are members of the American Association. Information in regard to membership, &c., can be obtained from Dr. Howard, address, at the Smithsonian Institution.

A New Book, *The Fourth Physician,* a Christmas story, by Montgomery Pickett. Published by A. C. McClurg & Co., Chicago, Ill.; price, $1.00.

A Free Clinic Has Been Organized in connection with the Social Settlement at South Capitol and Half Sts.; it was opened November 15th. Dr. Ionia R. Whipper, physician in charge.

The Other Medical Societies of the District of Columbia—

The program of the Medical History Club of Washington, D. C., for 1911-1912, is as follows:

Nov. 25. History of Hospitals, by Dr. J. A. Foote.

Dec. 30. History of Blood-letting, by Dr. F. H. Garrison.

Jan. 27, 1912. History of Hemostasis, by Dr. W. C. Borden.

Feb. 24. History of Obstetrics, by Dr. I. S. Stone.

March 30. Medicine in Lay Literature, by Dr. B. M. Randolph.

April 24. History of Ophthalmology, by Dr. D. K. Shute.

This Society was organized three years ago and has a membership of about twenty-five. The officers are: President, Dr. C. W. Richardson; Vice President, Dr. B. M. Randolph; Secretary, Dr. H. W. Lawson, 1117 Vermont Ave.

The Hippocrates Society, the object of which is "the cultivation and promotion of knowledge in whatever relates to the science of medicine and surgery," holds meetings on the second Thursday of each month from October to May. The membership in this Society is limited to 25. The officers for the present season are: President, Dr. Thomas S. D. Grasty; Vice President, Dr. Wm. G. Young; Secretary-Treasurer, Dr. Laurence M. Hynson.

Schedule of Meetings for Session of 1911-'12:

Oct. 12, at Dr. D. G. Smith's, 1421 Columbia Road. Business meeting.

Nov. 9, at Dr. W. T. Davis', 1627 16th St. Dr. H. C. Macatee, essayist.

Dec. 14, at Dr. W. W. Wilkinson's, The Rochambeau. Dr. Wm. Cabell Moore.

Jan. 11, 1912, at Dr. W. H. Syme's, The Laclede. Dr. Chas. A. Pfender.

Jan. 25, Annual Dinner. Invited Speaker.

Feb. 8, at Dr. Guy S. Saffold's, 1760 T St. Dr. W. H. Merrill.

Mar. 14, at Dr. Carl Henning's, The Rochambeau. Dr. J. D. Rogers.

April 11, at Dr. H. C. Macatee's, 2465 18th St. Dr. C. L. Davis.

May 9, at Dr. Wm. Cabell Moore's, The Wyoming. President's Address.

Society of Ophthalmologists and Otologists of Washington.—At the annual meeting held in May, 1911, Dr. S. B. Muncaster was elected President, Dr. Robert Scott Lamb, Vice President, and Dr. A. B. Bennett, Secretary-Treasurer. The meetings are held on the third Friday in the month from October to May, inclusive. The October meeting was held at the office of Dr. Carl Henning, who read a paper on "Epiphora," and Dr. E. G. Seibert read a paper on "The superior maxilla." The November meeting will be held at the residence of Dr. F. M. Chisolm, 1632 Rhode Island Ave.

The opening meeting of the season of the George Washington University Medical Society was devoted to a symposium upon the "Wasserman reaction and salvarsan," the subjects being divided among Drs. Hough, C. F. Craig, and H. J. Nichols. The large experience of these gentlemen with modern work in the diagnosis and treatment of lues, made the meeting a particularly profitable one, especially as considerable terse dis-

cussion from various viewpoints followed their presentation of the subject.

The Clinical Society *of Washington,* which was organized in 1894, is composed of twenty-five active members, besides the retired members. An active member may become retired after ten years of active membership. At the first meeting of the current year Dr. T. A. Groover presented an essay entitled: "The x-ray in the diagnosis of diseases and deformities of bone." He showed a large number of excellent radiographs by means of an illuminating box.

At the November meeting an essay upon "Surgical Shock" was presented by Dr. Reichelderfer.

The officers are: Dr. C. M. Hammett, President; Dr. T. A. Groover, Vice President, and Dr. Wm. Earl Clark, Secretary-Treasurer. Censors: Drs. L. A. Johnson and J. D. Thomas.

The program for 1911-'12 is as follows:

Oct. 9, 1911. Dr. T. A. Groover, essayist; at Dr. G. W. Prentiss', 1213 M St., N. W. Discussion led by Dr. Chas. White.

Nov. 13. Dr. L. H. Reichelderfer, essayist; at Dr. Walter Wells', The Rochambeau. Discussion led by Dr. V. B. Jackson.

Dec. 11. Dr. H. H. Donnally, essayist; at Dr. W. M. Barton's, 1730 Conn. Ave. Discussion led by Dr. J. S. Wall.

Jan. 8, 1912. Dr. W. E. Clark, essayist; at Dr. L. H. Reichelderfer's, 1721 Conn. Ave. Discussion led by Dr. C. C. Marbury.

Feb. 12. Dr. W. J. Mallory, essayist; at Dr. Monte Griffith's, The Farragut. Discussion led by Dr. Sothoron Key.

March 11. Dr. J. D. Thomas, essayist; at Dr. A. B. Hooe's, 1220 16th St., N. W. Discussion led by Dr. Harry Hurtt.

April 8. Dr. W. M. Barton, essayist; at Dr. W. E. Clark's, The Rochambeau. Discussion led by Dr. J. B. Nichols.

May 13. Dr. L. A. Johnson, essayist; at Dr. H. H. Donnally's, 1612 Eye St., N. W. Discussion led by Dr. M. D'Arcy Magee.

Oct. 14. Dr. V. B. Jackson, essayist; at Dr. T. A. Groover's, The Iroquois. Discussion led by Dr. D. W. Prentiss.

Nov. 11. Dr. A. B. Hooe, essayist; at Dr. Sothoron Key's, 1716 H St., N. W. Discussion led by Dr. L. H. Reichelderfer.

Dec. 9. Dr. F. L. Biscoe, essayist; at Dr. J. D. Thomas', 1716 M St., N. W. Discussion led by Dr. Monte Griffith.

The Women's Medical Society of the District of Columbia meets on the second Tuesday of each month from October to May, inclusive. The officers are Dr. Mary Parsons, President; Dr. Bordeau-Sisco, Vice President; Dr. Mary Holmes, Recording Secretary and Treasurer, and Dr. Martha M. B. Lyon, Corresponding Secretary.

The program for the season is as follows: December meeting at Dr. E. C. S. Keith's, Dr. Louise Tayler-Jones, essayist; January meeting at Dr. Elizabeth Sohon's, Dr. Sofie A. N. Jung,

essayist; February at Dr. Ada Thomas', Dr. Ida J. Heiberger, essayist; March at Dr. Sisco's, Dr. I. H. Lamb, essayist; April at Dr. E. C. Folkmar's, Dr. Lyon, essayist; May, business meeting, at Dr. Phoebe Norris'.

The Galen Society of the District of Columbia, 1911-1912. Dr. H. J. Bryson, President; Dr. R. Lee Spire, Secretary-Treasurer.

November 13, 1911, at Dr. H. J. Bryson's, 714 12th St., N. E.; Dr. Charles A. Pfender; The prophylactic value of instruction of children in sex physiology.

December 18, at Dr. E. T. Stephenson's, 653 Maryland Ave., N. E., Dr. E. P. Copeland; Obscure fevers in infancy and childhood.

January 22, 1912, at Dr. William J. Mallory's, 1720 Connecticut Ave.; Dr. E. T. Stephenson; Diagnosis and treatment of some of the common diseases of childhood.

February 19, at Dr. E. G. Seibert's, 1817 19th St., N. W.; Dr. William J. Mallory; Modern progress in dietetics.

March 18, at Dr. Hugh Nutting's, 1351 Newton St., N. W.; Dr. Carl Henning; The prognosis of ocular injuries.

April 22, at Dr. E. Comstock Wilson's, 11th and Mass. Ave., N. E.; Dr. E. G. Seibert; Mastoid disease.

May 20, at Dr. E. P. Copeland's, The Rockingham; Dr. Charles A. Hyde; Tubercular meningitis with report of case.

October 21, at Dr. R. Lee Spire's, 1609 North Capitol Street; Election of Officers; Miscellaneous business.

The Secretaries of the other Medical Societies of this District are reminded that the Annals will publish the schedules of their meetings for the coming season.

The "New Children's Hospital.—The members of the Medical Society seem slow to utilize the excellent opportunities which are offered to them by the Children's Hospital in the accommodations for *private* cases. A whole floor of the new west wing is given over to private rooms which may be engaged singly or in suite, two rooms and bath. These suites are all newly furnished and equipped with individual utensils for each patient. Of course each room is an outside, well lighted and ventilated room, and with the many improvements recently made in the hospital, is found a large amount of outdoor space where patients may be taken in their beds. Members of the Society are privileged to use the operating room for patients occupying private rooms. The authorities of the Hospital deserve the thanks of the profession and of the community for modernizing their institution and greatly enlarging its usefulness.

Georgetown University Hospital.—The Elisha Francis Riggs Memorial Building, especially designed for the reception of maternity cases, is now under roof, and it is hoped will be in

operation in January, 1912. The building has a front of 58 feet on N Street by a depth of 100 feet. The first floor will provide accommodations for 24 colored female patients; the second floor is designed for a similar number of white patients; the third floor will accommodate 20 patients who can afford to pay from $10 to $12 a week, and the fourth floor is wholly devoted to private rooms. Each floor has a separate delivery and recovery room, rooms for nurses, diet kitchen, etc., and the building will be provided with an elevator and a roof garden.

Another pavilion, 30 by 100 feet, will be erected on the corner of 36th and N Streets, devoted to the care and treatment of mental and nervous diseases. The first floor will be almost entirely devoted to hydro- and electro-therapeutics, and will be fitted up with a Scotch douche, control table, hot-air and electric-light cabinets, continuous baths, Nauheim and medicated baths, seat and perineal douches, shampoo, massage and pack tables. It is believed that this pavilion will fill a distinct need in the care and treatment of a large class of patients.

The accommodations of the Hospital are open to the members of the profession.

School of Medicine of Georgetown University.—The Medical School of Georgetown University opened September 27 with a total enrollment of 145 students and a Freshman class of 55. The School, beginning with the session of 1912, will require of candidates for admission, in addition to a four-year high-school education or its equivalent, two years of collegiate work, including chemistry, physics, biology and either French or German. If this work has not been taken in a college of liberal arts the second preliminary year can be taken in connection with the university courses, but cannot be credited to the medical course. Dr. Ralph A. Hamilton has been appointed Professor of Histology and Embryology.

Recent Medical Publications and Medical Papers read by physicians of the District of Columbia:

H. H. Hazen; "Skin changes in the leukemias and allied conditions"; *Jour. Cutan. Dis.,* October. Abstracted in *Jour. A. M. A.,* October 28, page 1489.

H. H. Kerr and H. H. Hazen; "Epithelioma of the upper lip in a pure negro"; *Jour. Cutan. Dis.,* May.

Reid Hunt and Atherton Seidell; "The pharmacopoeial standard for dessicated thyroid glands"; *Amer. Jour. Pharm.,* September.

W. A. Wells; "Proper position of the head in treating the middle ear"; read before the Montgomery Co. Med. Assn., at Gaithersburg, Md., October 17.

Tom A. Williams read a paper at the meeting of the Roanoke

(Va.) Academy of Medicine, October 2, subject, "Tumors in the brain."

Dr. Gustavus Werber read a paper at the same meeting; subject, "Enforced compensation."

Tom A. Williams; "Radical removal of the conditions causing arterial changes leading to non-psychogenic disturbances of the nervous system"; cases.

Arthur MacDonald; "Traumatic hypnotism"; *Pacific Med. Jour,.* October, page 598; also in *American Medicine,* September.

J. B. Nichols; "History of internal medicine"; *Pop. Sci. Mo.,* September. Abstracted in *Jour. A. M. A.,* Nov. 18, page 1675.

W. H. Frost, of the U. S. P. H. and M. H. S., with H. W. Hill, of Minneapolis, and S. G. Dixon, of Harrisburg, Pa.; "Report of committee on methods for the control of epidemic poliomyelitis"; *Jour. A. M. A.,* Oct. 14, page 1275.

C. W. Edwards and Worth Hale; "The physiological standardization of ergot"; Bull. 76, Hygienic Laboratory, July, 1911.

A. J. McLaughlin; "Sewage pollution of interstate and international waters with special reference to the spread of typhoid fever"; Bull. 77, Hygienic Laboratory, July, 1911.

E. H. Egbert; "The application of superheated air"; reprint.

J. W. Trask; "Smallpox in the United States in 1910"; reprinted from Public Health Reports, U. S. P. H. & M. H. S., No. 63.

R. S. Lamb; "Unusual case of foreign body in the upper eyelid"; *Ophthalmic Record,* February. Also "Mixed irregular astigmatism following injury to the eye"; same journal, March.

T. A. Williams; "Case of a partial tremulous scrivener's palsy"; *N. Y. Med. Jour.,* October 7.

B. M. Randolph; "The nosology of the so-called rheumatic diseases"; *Old Dominion Jour. Med. and Surg.,* October, page 209. Abstracted in *Jour. A. M. A.,* Nov. 18, p. 1723.

T. A. Williams; "Hysteria or neoplasm; paralysis of arm removed by suggestion, although accompanied by a cerebral neoplasm"; *Old Dominion Jour., Med. and Surg.,* October; also in *Lancet Clinic,* October 7.

C. A. Pfender; "Pathology and etiology of varicocele with abridged history of surgical treatment"; *St. Louis Med. Rev.,* September.

H. M. Manning; "Prevalence of intestinal parasites among immigrants"; *Medical Record, N. Y.;* abstracted in *Jour. A. M. A.,* Oct. 14, page 1323.

W. J. McGee; "Soil erosion"; Bull. of Soils, No. 71.

Joseph Goldberger; "A new trematode, Styplodora Bascaniensis, with a blind Laurer's canal"; *Proc. U. S. Nat. Mus.,* 40, page 233.

D. S. Lamb; "Malformations and Monstrosities in the Army Medical Museum"; *Military Surgeon,* October, page 374.

F. R. Hagner; "Operative treatment of carcinoma of fundus of bladder"; also cases of cystitis, multiple ulcers; cured by excision of ulcers"; *Surg. Gynec. and Obstet.,* September.

F. C. Walsh; Case of urinary suppression treated by catheterization of kidney pelvis"; *Surg., Gynec. and Obstet.,* September.

A. Seidell; "Further experiments on determination of iodin in thyroid"; *Jour. Biol. Chem.,* September.

R. A. Gartner; "Studies in melanin; inhibitory action of certain phenolic substances on tyrosinias"; *Jour. Biol. Chem.,* September.

C. F. Craig, U. S. A.; "Immunic effect on complement fixation test for lues of treatment with salvarsan"; *Arch. Internat. Med.,* Sept. 15.

J. R. Verbrycke, Jr.; "Chronic gastritis"; *Old Dom. Jour. Med. and Surg.,* Sept., page 168.

C. F. Craig, U. S. A.; "The prophylaxis of malarial infection"; *Military Surgeon,* September. Abstracted in *Old Dom. Jour. Med. and Surg.,* Sept., p. 194.

Joseph Goldberger and J. F. Anderson; "The nature of the virus of measles"; *Jour. A. M. A.,* Sept. 16, p. 971.

C. W. Richardson; "Vasomotor disturbances of the upper air tract"; *Laryngoscope,* August.

H. A. Brown; "Suicide in registration areas"; *N. Y. Med. Jour.,* Sept. 2.

P. S. Roy; "A plea for accurate food therapy"; *Va. Med. Semi-Mo.,* Aug. 11.

L. O. Howard; "The house fly; disease carrier; an account of the dangerous activities and the means of destroying it; 1911; 312 pages; 35 illustrations." Price, $1.60 net.

D. W. Prentiss; "The indications for gastro-enterostomy"; *Va. Med. Semi-Mo.,* Sept. 8, p. 273.

I. W. Blackburn; "Pachymeningitis interna"; *Jour. Nerv. and Mental Dis.,* August; abstracted in *Jour. A. M. A.,* Sept. 9, p. 926.

O. A. H. McKimmie; "Cases of chronic suppurative otitis in which ossiculectomy is indicated"; *Ann. Otol. Rhin. and Laryng.,* June.

L. L. Lumsden and W. C. Rucker; "The control of typhoid fever"; *Jour. A. M. A.,* Sept. 9, p. 891.

F. H. Garrison and Felix Neumann; "How to collect old medical books in Europe"; *Jour. A. M. A.,* Sept. 9, p. 895.

G. T. Vaughan; "Perforating bullet wound of the femoral artery and vein resulting in aneurysmal varix; two wounds in each vessel, closed by sutures; recovery"; *Surg. Gynec. and Obstet.,* August.

C. A. Simpson; "Random remarks on syphilis and salvarsan"; *Va. Med. Semi-Mo.,* Aug. 25, p. 250.

A. M. Stimson; "Bacteriological examination of feces for cholera vibrio"; *Jour. Amer. Pub. Hlth. Assn.,* August.

C. J. Fox; "Aseptic hospital floor"; *Denver Med. Times,* September, page 89; abstracted in *Jour. A. M. A.,* Oct. 7, page 1238.

J. D. Morgan; "The psychoses of childbearing"; *Medical Record, N. Y.,* April 8.

Tom A. Williams; "Transverse myelitis at the first lumbar level, ushered in by intense and prolonged testicular pain, due to poliomyelitis"; *Louisiville Mo. Jour. Med. and Surg.,* October, page 134.

Wm. Salant; "The action of drugs under pathological conditions"; Circular 81, Bureau of Chemistry, Dept. Agriculture.

H. W. Wiley; "Bromatotherapy"; *Mo. Cyclop. and Med. Bull.,* September, page 513; October, p. 577.

L. Tayler-Jones; "Case of infection of newborn"; *Amer. Jour. Dis. Child.,* September. Abstracted in *Jour. A. M. A.,* Sept. 30, page 1162.

F. F. Russell, U. S. A.; "Isolation of typhoid bacilli from urine and feces, with description of new double-sugar tube medium"; *Jour. Med. Research,* September.

J. J. Hurley; "Asiatic cholera"; *Military Surgeon,* September.

Truman Abbe; "Treatment of breast cancer"; *Amer. Jour. Obstet.,* September.

W. H. Schultz; "Remedies for animal parasites"; *Jour. A. M. A.,* Sept. 30, page 1162.

A. M. Stimson; "Controlling hydrophobia in the human subject"; *Jour. A. M. A.,* Sept. 30, page 1128.

C. S. White; "The training of the nurse"; *Va. Med. Semi-Mo ,* Sept. 22, page 301.

J. S. Neate; "The antiseptic value of iodine in surgery"; *Military Surgeon,* August.

G. B. Miller; "Malformation of female genitals;" *Amer. Jour. Obstet., &c.,* August. Abstracted in *Jour. A. M. A.,* Sept. 2, p. 847.

G. T. Vaughan; "Case of hypernephroma"; *Amer. Jour. Obstet., &c.,* August.

D. W. Prentiss; "Case of eclampsia"; *Amer. Jour. Obstet., &c.,* August. Abstracted in *Jour. A. M. A.,* Sept. 2, p. 847.

H. J. Nichols, U. S. A.; "Further observations on certain features of experimental syphilis and yaws in the rabbit"; *Jour. Exp. Med.,* August.

T. A. Williams; "Pain in torticollis"; abstracted in *West Va. Med. Jour.,* September, p. 96.

W. A. Wells; "Three cases of fibrous polyp of nasopharynx, with exhibition of specimens"; *Laryngoscope,* July.

F. F. Russell, U. S. A.; "Antityphoid vaccination in American Army"; *Jour. Amer. Pub. Health Assn.,* July. Abstracted in *Jour. A. M. A.,* Aug. 26, p. 767.

J. R. Kean, U. S. A.; "The sanitary record of the Maneuver division"; *Jour. A. M. A.,* Aug. 26, p. 713.

J. F. Mitchell; "Sensibility of the peritoneum and abdominal viscera"; *Jour. A. M. A.,* Aug. 26, p. 709.

G. L. Kiefer and G. M. Kober; "Report of committee on control of venereal disease by a municipality"; *Jour. A. M. A.,* Sept. 23, p. 1052.

Reid Hunt; "Experiments on the relation of the thyroid to diet"; *Jour. A. M. A.,* Sept. 23, p. 1032.

J. R. Mohler; "Standard methods of procedure for the control of bovine tuberculosis in relation to milk syphilis"; *Jour. A. M. A.,* Sept. 18, p. 974.

J. R. Verbrycke; "Chronic colitis"; *Virginia Med. Semi-Mo.,* October 27, page 348.

J. B. Nichols; "The relation of cemeteries in the District of Columbia to public health."

G. M. Whitaker; "Score card system of dairy inspection from a national standpoint"; *Jour. Amer. Pub. Hlth. Assn.,* September.

T. A. Williams; "Psychic measures in medicine"; *Jour. South Carolina Med. Assn.,* October, page 365. Also "Luetic meningitis of the anterior fossa, with uncinate gyrus syndrome, simulating neoplasm"; *Maryland Med. Jour.,* November, page 309.

The *Jour. Med. Society of New Jersey,* November, page 310, quotes the conclusions of the committee of the Medical Association of this District on "Acute anterior poliomyelitis."

W. J. Mallory; "The treatment of gastric ulcer;" *Jour. A. M. A.,* Nov. 4, page 1521.

Worth Hale; "The effect of the digestive secretion on the action of digitalis and allied drugs"; *Jour. A. M. A.,* Nov. 4, page 1515.

L. Kolipinski's paper on "Nickel sulphate," that was published in the *Monthly Cyclop.* for June, is abstracted in the *Buffalo Medical Journal* for November, page 218.

C. H. Lavinder; "The salient epidemiological features of pellagra"; from Public Health Report, No. 65, U. S. P. H. and M. H. S., 1911.

T. F. Lowe; "Surgical Hints"; *Jour. Obstet., &c.,* October.

C. W. Stiles; "Bacteriologic examination of shucked and shell oysters"; *Jour. Amer. Pub. Hlth. Assn.,* September.

Raymond Spear, U. S. Navy; "Notes on tincture of iodin"; also "Notes on salvarsan"; U. S. Naval Medicine Bull., October, pages 490 and 491.

R. W. Shufeldt, U. S. A., retired; "Nakedness and public morality"; *Amer. Jour. Dermatol.,* November, page 596.

J. R. Verbrycke; "Methylene blue test of urine in cancer patients"; *Medical Record,* N. Y., October 28; abstracted in *Jour. A. M. A.,* November 11, page 1642.

A. W. Simpson; "Case of empyema"; *Jour. Med. Assn., Georgia,* October.

W. P. Carr; "Saving the hundredth man"; *Surg. Gynec. and Obstet.,* October.

J. F. Anderson and Joseph Goldberger; "The infectivity of the secretions and the desquamating scales of measles"; *Jour. A. M. A.,* November 11, page 1612.

H. W. Wiley; "Research work of the division of foods of the Bureau of Chemistry of the Dept. of Agriculture"; *Jour. Wash. Acad. Sci.,* Nov. 19, page 224.

Worth Hale and Atherton Seidell; "The colorimetric and physiological estimation of the active principle of the suprarenal gland"; *Jour. Wash. Acad. Sci.,* November 19, page 225.

T. A. Williams; "Occupation neuroses, &c."; *Washington Medical Annals,* January, 1911; abstracted in *Jour. Wash. Acad. Sci.,* November 19, page 246.

T. A. Williams; "Role and methods of psychotherapy in case of psychasthenia predisposing to inebriety"; *Med. Record,* N. Y., Nov. 4. Also, "Hysteria and neoplasm"; *Old Dom. Jour. Med. and Surg.,* October.

The following reprints have been received from Dr. C. W. Richardson; "Perforation of the septum naris"; *The Laryngoscope,* September, 1906. "Operative treatment of deflection of the nasal septum"; *Amer. Jour. Med. Sci.,* February, 1909. Vincent's Angina; *Annals of Otol, Rhinol, and Laryngol,* March, 1909. "Elongated styloid process"; *The Laryngoscope,* October, 1909." "Osteomyelitis of the temporal bone"; *Trans. Amer. Otol. Soc.,* 1910. Unusual foreign body (rubber ink eraser) in right bronchus," removed by lower bronchoscopy"; *The Laryngoscope,* October, 1910.

The following reprints have been received from Dr. R. S. Lamb; "Interstitial keratitis"; *Jour. Eye, Ear, Throat Dis.,* September, 1904. "Subconjunctival injections in diseases of the eye"; *Washington Medical Annals,* September, 1906. "Simple retinitis"; same journal, January, 1907. "Case of extensive injury of the cornea"; same journal, March, 1907. "Case of sarcoma of cerebellum"; same journal, November, 1907. "Angioscleroris of the eye"; *Ophthalmology,* January, 1908.

PERSONAL NOTES.

Dr. Wm. B. Magruder was a member of this Society from July, 1838, to May 30, 1869, when he died. He was Mayor of Washington from 1856 to 1858. He had a rather interesting history. Nov. 1, 1911, at the meeting of the Oldest Inhabitants of this city, a paper was read by Mr. Robt. H. Harkness entitled "Reminiscences of Dr. Wm. B. Magruder." (See page 228 of the History of the Society, halftone portrait in group 12.)

Dr. Wm. C. Woodward is Secretary of the American Public Health Association.

At the last meeting of the Association of Military Surgeons, Dr. W. C. Braisted, Surgeon U. S. Navy, and Dr. J. R. Kean, Lt. Col. Medical Corps, U. S. Army, were elected Vice Presidents, and Dr. Charles Lynch, Major, Med. Corps, U. S. Army, was re-elected Secretary.

Dr. H. A. Robbins, one of the oldest members of this Society, died October 26. An extended notice will appear hereafter. He joined the Society Nov. 22, 1865, was therefore a member nearly 46 years. A biographical sketch of him will be found on page 276 of the History of the Society and a halftone portrait in group 22.

Dr. J. H. Bryan read a paper on the Surgery of the Sinuses and its relation to Orbital Complications, before the Clinical Congress of Surgeons of North America, meeting in Philadelphia, Nov. 15.

Dr. Wiley was entertained by one of the clubs in New York city October 17. The topic of discussion was How to Obtain Health and Longevity.

Dr. Meade R. Edmunds has been appointed Medical Inspector in the Contagious Disease service of the Health Department of this city.

Dr. Ralph A. Hamilton has been appointed Professor of Histology and Embryology in the Georgetown Medical School.

Dr. E. R. Stitt, Surgeon, U. S. Navy, has been ordered to duty at the Naval Medical School; and Dr. C. O. Beeching, Asst. Surg., U. S. Navy, has been ordered to duty under instruction at the same school.

Dr. H. W. Wiley was one of the speakers at the Succoth Pilgrimage and 14th annual meeting of the National Farm School, Penna., October 15, and was a guest of honor at the school.

Dr. Camillo H. Machinek, formerly a member of the Medical Society and at his death a member of the Medical Association, died in this city, at his residence, the De Soto Apartment House, 12th and Mass. Ave., N. W., October 3. He was born at Freiburg, Switzerland, Dec. 3, 1869, and was graduated in medicine at Howard Medical College, this city, in 1892. He became a member of the Medical Society October 1, 1902, and was dropped from membership in 1907. It is said that he had no relatives in this country.

Dr. Chas. R. Greenleaf, Asst. Surg. General, U. S. A., retired, and who was well known in this city, died September 3.

Dr. E. P. Magruder was married in Edinburgh, Scotland, October 23, to Miss Mary L. MacGregor, daughter of the late Rear Admiral Sir Malcolm MacGregor of the English Navy. It is interesting to note that the name Magruder is a changed form of MacGregor.

Dr. Monte Griffith, it is stated, and Drs. Francis M. Chisolm and Thomas A. Poole, have become associated in the practice of Diseases of the Eye, Ear, Nose and Throat; their offices at the Farragut, 17th and I Sts., N. W.

Drs. H. W. Wiley and Wm. C. Woodward were speakers at the meeting of the Pure Food and Drug Dept. of the National Civic Federation, held at the rooms of the Board of Trade, N. Y. City, Oct. 2.

Dr. Joseph Taber Johnson was married Oct. 5, to Mrs. Elizabeth McCann, at New Rochelle, N. Y.

Dr. J. Dudley Morgan presided at the semi-annual meeting of the Montgomery Co. Medical Association at Gaithersburg, Md., Oct. 17.

Dr. George Titus Howland, graduate in medicine at Bellevue in 1886, died in hospital at Boston, Mass., September 24, the next day after undergoing an operation for appendicitis. Dr. Howland was born May 18, 1862, in New York. In 1890 he received the degree of M.D. at the University of Berlin. He was dropped from membership in this Society in 1903, having left Washington, it was then understood, for Bermudas. It is stated that he practiced medicine at Norwich, Conn., from 1902 till his death.

Dr. Llewellin Eliot is an associate editor of the *Virginia Medical Semi-Monthly*.

Dr. C. R. Dufour has opened an office in Alexandira, Va.

Dr. F. B. Bishop was elected a trustee at the 21st anniversary meeting of the American Electro-Therapeutic Association, in Philadelphia, Sept. 5 to 7.

Dr. W. W. Keen, of Philadelphia, an Honorary member of this Society, was made a Doctor of Laws in September, at the 500th anniversary of the founding of the University of St. Andrew's, Scotland.

Among the collaborators of the *Old Dominion Journal of Medicine and Surgery*, published at Richmond, Va., are Dr. Walter D. McCaw, Lt. Col., U. S. Army, and Librarian of the Library of the Surgeon General's Office; Drs. B. M. Randolph and W. H. Wilmer.

Dr. E. D. Thompson has been elected President of the North Capitol and Eckington Citizens' Association.

Dr. T. A. Williams is an Associate Editor of the *Amer. Jour. Physiological Therapeutics;* in charge of Psychotherapy.

Dr. H. W. Wiley addressed the Medical and Chirurgical Faculty of Maryland at the semi-annual meeting in Baltimore, October 20.

Dr. Charles F. Stokes, Surgeon General, U. S. Navy, addressed the Alumni of the Massachusetts General Hospital, Boston, on "Ether Day," October 16.

Dr. Rupert Norton, formerly a member of this Society, has

been elected President of the Johns Hopkins Hospital Medical Society.

Dr. W. D. Crosby, Lt. Col., U. S. Army, and Medical Officer at the Old Soldiers' Home, this city, has gone to Hot Springs, Ark., for treatment at the Army and Navy General Hospital.

Dr. W. C. Woodward is a member of the Committee on Health and Public Instruction of the A. M. A.

Drs. Reid Hunt, L. F. Kebler, H. W. Wiley and M. I. Wilber are members of the Committee on Pharmacy and Chemistry of the A. M. A.

Dr. M. I. Wilber is a member of the Section of Pharmacology and Therapeutics of the A. M. A.

Dr. E. C. Prentiss, who resigned from this Society several years ago, a brother of Dr. D. W. Prentiss, and a son of one of the most distinguished members, Dr. D. W. Prentiss,, Sr., removed to El Paso, Texas. He is a subscriber to the *Washington Medical Annals,* and is a member of the Council of Public Health and Legislation of the El Paso County Medical Society. Dr. Prentiss limits his practice to Disease of Digestion.

Dr. F. R. Hagner attended the meeting of the Mississippi Valley Medical Association at Nashville, Tenn., Oct. 17 to 19, and took part in the discussions.

Dr. J. R. Kean, Lt. Col., Med. Corps, U. S. Army, goes to Paris to attend the International Sanitary Conference.

Dr. Charles Lynch, Major, Med. Corps, U. S. Army, has gone to Pittsburgh in connection with the American Red Cross.

Dr. Cressy L. Wilbur, of the Bureau of the Census, is President-elect of the American Association for the Study and Prevention of Infant Mortality. The Society met Nov. 16 to 18, at the Hotel La Salle, Chicago, Ill.

Drs. P. C. Fauntleroy, Major, and W. T. Davis, Captain, Med. Corps, U. S. Army, will represent the Army at the meeting of the Clinical Congress of Surgeons of North America in Philadelphia.

Dr. Theodore Y. Hull, formerly a member of this Society and now residing at San Antonio, Texas, is the editor of a new medical periodical, the *Bulletin of the Bexar* (Texas) *County Medical Society.*

Drs. T. M. Vincent and C. V. Petteys made addresses at the meeting at old Fort Stevens, November 7, when the bowlder was placed that marks the site on which President Lincoln stood at the time of the assault on the fort, July 12, 1864.

Drs. Wiley and Woodward addressed the National Food Show at Convention Hall, November 7, under the auspices of the Retail Grocers Protective Association.

Dr. J. Breckinridge Boyle has returned to Washington.

Dr. Hamilton Wright is a delegate from the United States to the International Opium Conference, to meet at the Hague.

Dr. Wm. H. Arthur, Colonel, Medical Corps, U. S. A., is now

Chief Surgeon of the Division of the Philippines; stationed at Manila.

Dr. L. F. Kebler lectured on Pure drinks before the Y. M. C. A., November 15.

Dr. Bordeau-Sisco lectured on Health, before the W. C. T. U., November 15.

Dr. E. P. Magruder has resigned as Superintendent of the Emergency Hospital.

Dr. W. F. R. Phillips has been elected Professor of Anatomy in the School of Medicine, University of Alabama, Mobile, Ala.

Dr. H. W. Jones, Captain, Medical Corps, U. S. Army, has been transferred from the Walter Reed General Hospital to Jackson Barracks, La.

Dr. W. B. Carr, Lieutenant, Medical Corps, U. S. Army, has been transferred from Fortress Monroe to Fort Washington.

Dr. M. H. Darnall, Lieutenant, Medical Reserve Corps, U. S. Army, has been transferred from Fort Washington to Fort Hunt, Va.

Dr. W. C. Woodward addressed the Kensington Citizens' Association, November 10, on the subject of a metropolitan sewer system that would include the towns that are drained by Rock Creek and its tributaries.

Dr. H. W. Wiley made an address on "The Health of the People," at the National Conservation Congress at Kansas City, Mo., September 25-27.

Dr. L. L. Lumsden has gone to Lincoln, Nebraska, to investigate an epidemic of typhoid fever.

Dr. C. H. Lavinder represented the U. S. P. H. and M. H. S. at the Pellagra Conference at Columbia, S. C., November 2.

Dr. J. R. Kean will represent The Medical Dept., U. S. Army, at the meeting of the American Public Health Association in Cuba, December 4 to 9.

Dr. W. C. Woodward has been elected one of the Directors of the Washington Board of Trade.

Dr. C. Breckinridge Bayne was married in this city, November 15, to Miss Olga Roosevelt.

Dr. J. A. Anderson, Surgeon, U. S. P. H. and M. H. S., will represent that service at the meeting of the Amer. Pub. Hlth. Assn. at Havana, Cuba, Dec. 4 to 9.

Dr. Walter Wyman, Supervising Surgeon General of the U. S. Public Health and Marine Hospital Service and an Honorary Member of this Society, died November 20.

THE CAUTIOUS TONGUE.—Singing Teacher: "Now, children, give us 'Little Drops of Water,' and put some spirit in it."

Principal (whispering): "Careful, sir. This is a temperance school. Say 'put some ginger in it.'"—J. COLLINS, in June *Woman's Home Companion.*

REPORT OF THE COMMITTEE ON BY-LAWS.*

WASHINGTON, D. C., *November 1, 1911.*

To the MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA:

Your committee appointed for the purpose on July 10 and October 4, 1911, hereby submits:

I. A draft of proposed By-Laws for the Society, to be introduced for the consideration and action of the Society as provided for in the Constitution.

II. A draft of model By-Laws suggested for the guidance of sections; which is recommended to be printed in the ANNALS for the information of all concerned.

Respectfully submitted,

J. B. NICHOLS.
JOHN VAN RENSSELAER.
JOHN D. THOMAS.

I.

BY-LAWS.

I. Order of Business.—The following shall be the order of business for the meetings of the Society: 1. Call to order; 2. Reading of minutes of previous meeting; 3. Reports of officers; 4. Reports of committees and sections; 5. Election of members; 6. Election of officers; 7. Correspondence; 8. Miscellaneous business; 9. Introduction of visitors; 10. Presentation of clinical cases and pathological specimens; 11. Essays; 12. Adjournment.

II. Rules of Order.—The parliamentary procedure of this Society shall be governed by Robert's Rules of Order.

III. Visitors.—Any reputable physicians or persons engaged in collateral sciences or arts may at the invitation of any member attend the scientific meetings of the Society. Applicants for membership in the Society may also attend the meetings during the pendency of their applications. Medical officers of the public services while stationed in or near Washington are given a standing invitation to attend the scientific meetings of the Society and its sections, and notices of the meetings shall at the order of the Society be sent to such as may so desire. The privilege of visiting the meetings shall always, however, be subject in individual cases to the will of the Society.

IV. Essays.—No papers shall (without express permission) be presented before the Society that have been previously elsewhere read or published. The time allowed for delivery of essays shall be limited to thirty minutes; for presentation of cases or specimens, to ten minutes; and for discussions, to five minutes each; but these time limits may be extended by majority consent of the Society.

---

* Received by the Society, November 1, 1911, and ordered to be printed in the ANNALS.

V. Forms of application for membership.—The following forms are prescribed for application for active and associate membership in this Society.

ACTIVE MEMBERSHIP.

Washington, D. C., ———–, 19—.

To the Medical Society of the District of Columbia:

The undersigned, a legally qualified regular practitioner of medicine residing in the District of Columbia, hereby applies for active membership in the Medical Society of said District, and respectfully submits the following information as to his qualifications therefor:

Full name, —— ——; Date of birth, ——; Place of birth, ——; College of graduation as Doctor of Medicine, ———; Date of such graduation, ——; Date licensed by the Board of Medical Supervisors, ——; License No. ——, Series ——; Date of beginning the practice of medicine in the District of Columbia, ——.

At what times and places, other than this District, have you practiced medicine?

Name the medical and scientific societies and associations of which you have been a member, indicating those in which you still retain membership.

Name the public and institutional appointments which you have had, indicating the dates of such connections, and specifying the institutions with which you still retain connection.

Are you solely or mainly engaged in the lawful practice of medicine?

Are you engaged in any business, trade or profession, other than the practice of medicine? If so, please specify.

What degrees have you, other than Doctor of Medicine?

Have you previously made application for membership in this Society? If so, when?

I hereby agree to notify immediately the Secretary of this Society of any change in my address, and to inform him at once should I engage in any business, trade or profession other than the practice of medicine, prior to the meeting at which this application is acted upon.

Appreciating the requirement for investigating my eligibility for membership in this Society, I hereby agree to permit a full investigation and discussion by the Society and the Censors, and to abide by their decision.

Signature of Applicant ——— ———.

Address, ———.

Recommended by. (The signatures of three members of the Society indorsing the applicant must be furnished.)

Note.—Active membership in the Society is limited to reputable, regular, legally qualified practitioners of medicine residing in the District of Columbia, and solely or mainly engaged in the law-

ful practice of medicine therein. Applications are presented at one stated meeting and voted on at the next. The stated meetings are held on the first Wednesdays in January, March, May and November of each year. After election applicants must, within three months, pay an admission fee of five dollars and sign an obligation to be governed by the Constitution and By-Laws of the Society.

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Application for active membership.

No. ——.

.....

Received ——, 19—; presented at the stated meeting held ——, 19—, and referred to the committee of censors for investigation and report.

—— ——, *Recording Secretary.*

This is to certify that we have examined as to the qualifications of the within named applicant, and found him —— eligible for membership in this Society.

——— ———.
——— ———.
——— ———.
——— ———.
——— ———.

Censors.

—— at the stated meeting held ——, 19—.

—— ——, *Recording Secretary.*

ASSOCIATE MEMBERSHIP.

Washington, D. C., ———, 19—.

To the MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA:

The undersigned hereby applies for associate membership in the Medical Society of the District of Columbia, and submits the following information as to his qualifications therefor:

Full name, —— ——; date of birth, ——; place of birth, ——; residence, ———; profession, ———.

State all the academic and professional degrees held by you, with the school and the date of graduation in each case.

In what other business or occupation are you engaged other than the practice of your profession?

How long have you been engaged in the practice of your profession?

How long have you lived in your present place of residence?

Name the scientific and professional societies of which you have been a member, indicating those in which you now retain membership.

Name the public and institutional appointments which you

have had, indicating the dates of such connections, and specifying those which you now have.

Appreciating the requirement for investigating my eligibility for membership in this Society, I hereby agree to permit a full investigation and discussion by the Society and the Censors, and to abide by their decision.

Signature of Applicant ——— ———.

Address, ———.

Recommended by. (The signatures of three members of the Society indorsing the applicant must be furnished.)

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Application for associate membership.

No. ——.

. . . . . .

Received, ——, 19—; presented at the stated meeting held ——, 19—, and referred to the committee of censors for investigation and report.

—— ——, *Recording Secretary.*

This is to certify that we have examined as to the qualifications of the within named applicant, and found him —— eligible for membership in this Society.

——— ———.
——— ———.
——— ———.
——— ———.
——— ———.

Censors.

——— at the stated meeting held ——, 19—.

—— ——, *Recording Secretary.*

VI. Obligation for new members.—The following obligation shall be signed by each new member within three months of his election to membership:

"I hereby agree to be governed by the Constitution and By-Laws of the Medical Society of the District of Columbia, and to abide by the regulations prescribed therein."

VII. Duties and professional relations of members.—1. The principles of medical ethics of the American Medical Association adopted May 7, 1903, shall be binding upon the members of the Society.

2. In certificates of illness concerning absence from official duties given to employees in the public service, or others, the disease shall not be specified, neither shall the name or nature of the disease be divulged by any written description or statement of symptoms, given to the patient, nor by any specification of the

disorder, nor by any disclosure which may be construed as an evasion of the purpose of this regulation.

3. It shall be the duty of members of this Society to discourage patients from defrauding other members, and it is expected that the members will use all just and proper means to assist one another in the collection of their fees for professional services.

4. No member of this Society who has been called in as consulting physician, in a medical or surgical case, shall assume sole charge of the patient, during the same illness, unless he shall have been specifically requested to do so by the attending physician.

5. No member of this Society shall offer, solicit, give, or receive any commission for recommending or referring patients for general or special treatment, diagnosis, or operation; or shall solicit or accept any commission from any pharmacist or other dealer in supplies and appliances for the sick and injured on account of patients referred to them.

6. Any member guilty of violating any of the public laws relating to medical and surgical practice shall be subject to discipline by the Society.

7. Members summoned as witnesses in cases under investigation by the Executive Committee shall comply, under penalty of discipline by the Society.

VIII. Hospitals and their Medical Staffs.—1. Every institution for medical charity shall require from every applicant for relief in its hospital or dispensary, a written certificate, to be obtained as hereinafter provided, that said applicant is unable to pay. Emergency cases are to be excepted from the operation of this rule.

2. Such certificate shall be obtained from Physicians to the Poor, the Associated Charities, or any registered physician.

3. Sick and injured persons found upon the streets or elsewhere, who require immediate treatment, shall be carried to the Emergency Hospital, or the nearest hospital having an emergency service, or to their homes, if so directed by the patient or his friends.

4. Emergency patients shall not be detained longer in such institutions than the necessity of the case imperatively demands, but shall be discharged from the service and sent to their homes or to such public hospital as the patient may elect.

5. Members of this Society shall be entitled to the privilege of attending private patients occupying private rooms in any of the public hospitals of this city.

6. The members of the medical staffs of hospitals when attending medical or surgical cases in private pay rooms shall insist upon proper payment for their services, except in the case of patients who are unable to pay.

7. Whenever the medical staff of a hospital or dispensary, or any member thereof, is forced to resign, and when, after due

hearing, this Society finds that the resignations were for unjust and insufficient cause, it shall be forbidden to any member of this Society to accept a position on the staff of said hospital or dispensary.

8. Whenever one or more members of the medical staff of a hospital or dispensary are dismissed, and when, after due investigation, this Society finds that such dismissal was without just and sufficient cause, it shall be forbidden to any member of this Society to fill the vacancy created thereby.

9. Complaints under Sections 7 and 8 of this article shall be made in writing to the Executive Committee, for its investigation and action.

10. If upon investigation the Society should direct the enforcement of the prohibitions contained in Sections 7 and 8 of this article and afterwards a satisfactory adjustment of the differences recited be obtained, the Society may withdraw objections to filling the vacancy or vacancies described.

IX. Fees.—1. The following fees shall be charged for professional services, subject, however, to the several rules which are appended:

First visit	$2 to	$10
Each subsequent visit	2 to	10
Office consultation	2 to	10
Each consultation visit	5 to	50
The attending physician is entitled for each meeting to	5 to	50
Visit at night (night is understood to commence at 8 P. M. and end at 8 A. M.)	5 to	25
Advice at night at physician's house	5 to	10
Advice over telephone	2 to	10
Visiting at hour specified by the patient, the usual consultation fee.		
Visiting out of the city, at the discretion of the physician.		
For services to distant patients, in addition to the expense of travel, per day	50 to	500
Detention in any case at patient's house	5 to	100
All cases of small-pox, diphtheria, and scarlet fever, for each visit	3 to	10
Administering antitoxins	5 to	25
Case of gonorrhea, each consultation (cash)	5 to	15
Case of syphilis, each consultation (cash)	5 to	25
Venesection	10 to	100
Intravenous injections	10 to	200
Examination of urine, sputum, exudates, transudates, pus, stomach contents, feces, milk, cerebro-spinal fluid, calculi, etc.	5 to	50
Blood examination:		
Enumeration of corpuscles	5 to	25
Differential count	5 to	25
Widal test	5 to	25
Malarial examination	5 to	25
Blood culture	10 to	100
Wassermann test	15 to	100
Preparation of vaccines	25 to	200
Bacteriological examination of waters, etc.	5 to	200

Chemical examinations	5 to 200
Microscopic examination of tissues, etc.	10 to 200
Lumbar puncture	10 to 50
Autopsies	25 to 500
For letter of advice or written opinion	5 to 500
All certificates of life insurance, insanity, etc.	5 to 25
For attendance upon court in civil cases, per day	50 to 300
For an examination involving a question of law in a case in which the physician will be subpoenaed, and in all cases in which the physician is required to give medical opinions before a Committee of Congress	50 to 500
X-ray work—For work done in laboratory:	
Sinus examinations	25 to 50
Examination of teeth	10 to 75
Diagnosis of renal and vesical calculi and gallstones	50 to 200
Examination of stomach and bowels	75 to 200
Examination of chest	25 to 100
Examination of shoulder	25 to 50
Examination of elbow	15 to 50
Examination of hand and wrist	15 to 50
Examination of hip and pelvis	50 to 150
Examination of foot and ankle	15 to 50
Examination of leg and knee	25 to 75
Location of foreign bodies in the eye	25 to 50
For work done outside of the laboratory, from 50 to 500 per cent. additional, according to mileage.	
Cases of obstetrics	25 to 500
Operation for Caesarean section, symphyseotomy, extra-uterine pregnancy, high forceps, version, induction of premature labor, etc.	100 to 5,000
All obstetrical services, cash.	
Abdominal section for relief of wounded viscera such as bladder, spleen, intestines, kidneys, liver or other organs, or for appendicitis	100 to 5,000
Capital operation as, for example, amputating large limbs, trephining, excision of large tumors, operation for radical cure of hernia, for aneurism, extirpation of cancerous breast, ligation of large arteries, etc.	100 to 5,000
Operation for hemorrhoids	50 to 500
Operation for fistula in ano	50 to 500
Operation for fissure of anus	10 to 100
Each subsequent dressing at usual rate for dressing wounds.	
Operation for subcutaneous tenotomy	25 to 500
Amputation of fingers or toes	25 to 100
Amputation through tarsal or metatarsal bones	50 to 300
Reduction of dislocation	25 to 500
Adjustment of fractured long bones	50 to 1,000
Subsequent attendance at ordinary rates, but each renewal of bandages or apparatus	5 to 50
For each assistant in surgical operations	10 to 100
Dressing recent wounds, etc.	5 to 25
Paracentesis abdominis	15 to 100
Opening abscess	5 to 25
Extirpation of tumors of minor importance	10 to 100
Administration of anæsthetics	10 to 100
Hysterectomy	100 to 5,000
Ovariotomy, salpingectomy, tubal pregnancy, etc.	100 to 5,000
Amputation of cervix	50 to 500
Operation for prolapse of uterus	100 to 1,000
Operation for uterine displacement	100 to 1,000

Gynecological examinations	5 to 25
Minor gynecological operations, such as repair of perineum, trachelorrhaphy, urinary fistula, vaginal puncture, colporrhaphy, curettement, dilation, etc.	25 to 500
Operations on the eye:	
Operation on the lens for cataract, etc	25 to 1,000
Chalazion, incision of	10 to 15
Enucleation	50 to 250
Foreign body in interior of the eye	100 to 1,000
Iridectomy, etc.	50 to 250
Plastic operation	25 to 500
Removal of foreign bodies from cornea and conjunctiva	3 to 15
Minor operations upon the eye, such as pterygium, paracentesis of cornea, ablation of staphyloma, tenotomy, grattage, trachoma, etc.	10 to 100
Operations on the ear:	
Mastoid abscess and abscess of brain	100 to 2,000
Removal of ossicles	50 to 500
Sinus thrombosis, operation for	200 to 2,000
Minor operations, as paracentesis, removal of cerumen, polypus, foreign bodies, etc.	10 to 50
Exenteration	100 to 1,000
Operations on the nose and throat:	
Operation for deflected septum, foreign bodies, polypus, septal spur, turbinates, etc.	10 to 250
Operation for sinusitis, ethmoidal, frontal or sphenoidal	100 to 1,000
Tonsillectomy, uvulectomy, adenectomy	10 to 250
Tracheotomy	100 to 500
Intubation	50 to 500
Laryngectomy or laryngotomy	250 to 1,000
Removal of laryngeal growth	100 to 1,000
Operation for harelip or cleft palate	100 to 1,000
Cystoscopic examination and catheterization of ureters	25 to 200
External urethrotomy for stricture	100 to 1,500
Removal of testicle for malignant growth, or operation for undescended testicle	100 to 2,000
Prostatectomy, etc.	100 to 5,000
Cystotomy for stones, etc.	100 to 2,000
Removal of kidney, nephrotomy, etc.	100 to 5,000
Removal of ureteral stones	100 to 5,000
Inguinal adenectomy	50 to 300

2. The foregoing table contains the standard fees which shall be demanded; they shall be increased according to the judgment of the practitioner concerned, in all cases of extraordinary detention or attendance; also in proportion to the importance of the cases, of the responsibility attached to it, and to the services rendered, when these are extraordinary. They shall be diminished at the discretion of the physician when he believes that the patient can not afford to pay the regular fees, and yet is able to make some compensation; but diminishing the fees except for motives of charity and benevolence is a violation of this regulation.

3. Medical officers connected with the staffs of the hospitals and dispensaries in the District of Columbia shall charge the usual fees for medical services rendered to persons who seek gratuitous services when they are able to pay.

4. Clergymen are not entitled to gratuitous services except when they are in indigent circumstances.

Graduates of medicine are not entitled to gratuitous services unless they devote their entire time to the practice of medicine or by reason of age or infirmity have retired from the regular practice of medicine, or unless such graduates of medicine are in indigent circumstances.

5. It is not designed by these regulations to prevent gratuitous services to those who are incapable of making remuneration without distressing themselves or their families.

6. When a physician engaged to attend a case of obstetrics is absent, and a second attends the patient, the latter may charge the full fee, but shall relinquish the patient to the first on his return; and in no case shall the second continue to attend, except to render indispensable service during the continued absence or disability of the first.

7. When one or more physicians are called in consultation the attending and consulting physician or physicians shall charge at least the ordinary fee for delivery or other services; but when the latter are not detained in attendance they shall only charge the usual fee for consultation.

8. It is recommended that the members of this Society present their accounts for professional services at the close of the attendance; and it shall be the duty of each member to obtain, if possible, a settlement from all his patients at least once in three months, viz: the first of January, the first of April, the first of July, and the first of October.

9. No member of this Society shall make a contract, expressed or implied, to attend an individual, family, club, lodge, or other organization by the year, or on any terms other than those authorized by these regulations.

II.

SUGGESTED BY-LAWS OF THE SECTION ON ——— ——— OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

I. Status.—This organization shall be the Section on ——— of the Medical Society of the District of Columbia, organized and operating as a component part of this Society under the provisions and restrictions of its Constitution.

II. Object.—The object of this Section shall be the scientific presentation and consideration of subjects relating to ———, the general advancement of that department of medicine, and the social intercourse of its members.

III. Meetings.—1. This Section shall hold regular meetings, for the transaction of business and its scientific and social proceedings, at such place as may be fixed upon, on the ——— of each month from October to May, inclusive, beginning at eight o'clock P. M.

2. This Section shall conduct the scientific proceedings at such regular meetings of the Medical Society of the District of Columbia as may be duly arranged for.

3. Special meetings shall be held as may be ordered by the Section or its executive committee, or upon the written request of any six members.

4. Due notice of each meeting, with the contemplated business, scientific, and social program thereof, shall be sent to each member.

IV. Membership.—1. The members of this Section shall consist of such active and associate members of the Medical Society of the District of Columbia as may subscribe an obligation to be governed by these By-Laws and who conform to their requirements.

2. The business of this Section shall be conducted exclusively by such of its members as are active members of the Medical Society of the District of Columbia; the associate members shall have the right to participate in the scientific and social proceedings of the Section, but not to vote on business matters or hold office.

3. Fifteen members present shall constitute a quorum for the transaction of the business of this Section.

4. Resignations of membership in this Section may be accepted at any regular meeting after having been presented at a previous regular meeting; but no resignation shall be accepted from any member who is under any indebtedness to the Section.

5. All members two years in arrears in the payment of dues or assessments shall, unless these are remitted, be dropped from membership in this Section.

6. Any member of this Section guilty of outrageous conduct may, after investigation and report by the executive committee, be expelled, suspended, or otherwise disciplined, upon a concurrence of two-thirds of the votes cast at any regular meeting, after due notice of the proposed vote shall have been sent to all the members.

V. Officers.—1. The officers of this Section shall be a chairman, a vice-chairman, a secretary and a treasurer, who shall be elected by ballot at the ——— regular meeting in December of each year, to serve during the following calendar year.

2. The duties of these officers shall be such as usually pertain to their respective offices.

VI. Executive Committee.—1. An executive committee of this Section shall be maintained, consisting of the four officers, and of three other members, who shall be elected by ballot at the ——— regular meeting in each December, and shall serve during the ensuing calendar year.

2. The executive committee shall arrange for the programs of

the meetings and in general oversee and guide the operations of the Section.

VII. Dues.—Annual dues of —— dollars shall be paid in every January by each member; and special assessments may be levied at any regular meeting after due notice of such proposed action shall have been sent to the members.

VIII. Order of Business.—The following shall be the order of business for the meetings of the Section, subject, however, to temporary modification by majority vote: 1. Call to order; 2. Reading of minutes of previous meeting; 3. Reports of officers and committees; 4. Election of officers; 5. Miscellaneous business; 6. Introduction of visitors; 7. Presentation of clinical cases and pathological specimens; 8. Essays; 9. Adjournment; 10. Social session.

IX. Rules of Order.—The parliamentary procedure of this Section shall be governed by Robert's Rules of Order.

X. Essays.—No papers shall (without permission) be read before the Section that have been elsewhere read or published.

XI. Amendments.—Amendments to these By-Laws may be adopted by a favorable concurrence of two-thirds of the votes cast at any regular meeting, after having been proposed in writing at a regular meeting at least one month previously and a copy thereof been sent to all the members with a notice of the meeting at which their adoption is to be voted on.

WASHINGTON MEDICAL ANNALS

ANNUAL PRESIDENTIAL ADDRESS.*

By Wilfred M. Barton, M. D.,

President of the Society.

Prior to laying down the gavel and surrendering the presidency to my honored successor, Dr. Nichols, I desire to record my appreciation of the warm sympathy and cordial support of the members of this great medical body during the past year of my incumbency in office.

I have not the power to adequately express my deep appreciation of this courtesy, without which my own feeble efforts would have been indeed unavailing, and whatever of importance and of lasting good will have been accomplished during my administration I feel to be due much more to your generous help than to my own endeavors. I shall, however, always feel a natural pride in the fact that during the year 1911, a year so fraught with momentous events in the history of medical organization in this District, I had the honor of serving as the president of this distinguished body.

There is one fact associated with 1911 which will always stand out in bold relief in our memories, namely, the amalgamation of the two great medical organizations of this city. And before passing to my formal address I hope you will tolerate a brief reference to the facts, as they appear in our records, which seem to have led up to this amalgamation. I have arranged them in the form of a chronological protocol.

In all sociologic events in history, great or small, it is never possible to trace them to their very origin. Therefore, we shall never know who among us first conceived the idea of amalgamation. We can only note the particular occasions when this conception, at first hidden in the minds and hearts of a few, finally found expression in spoken words and written resolutions. It will take me but a few moments to recall to you the record as I have found it in a search of our transactions.

April 10, 1907, during the administration of Dr. Shute, a resolution was offered by Dr. P. C. Hunt, now deceased, calling

* Delivered before the Medical Society, December 20, 1911.

for the appointment of a committee of five to meet a similar committee from the Medical Association to *consider the relations* of the two bodies. The President appointed Drs. Acker, Phillips, G. Wythe Cook, J. Dudley Morgan and John D. Thomas. April 24, Drs. Mackall and Chappell were added to the committee *vice* Drs. Cook and Thomas, resigned. This committee conferred with one appointed by the Medical Association, and the question of the advisability of amalgamation was brought up and discussed. The joint committee recommended that the constitution of the Association be amended so as to provide for the consideration of all matters of legislation on medical subjects, and that the Association be made a sufficiently scientific body to comply with the requirements of the American Medical Association. The constitution was amended to conform to the first part of this resolution.

November 20, 1907, Dr. Sowers presented a resolution from the Executive Committee of this Society that all legislative matters be turned over to the Legislative Committee of the Association, which committee had just been formed at the request of the American Medical Association. This was later adopted. Dec. 4, 1907, the Society adopted a resolution providing that the Executive Committee should suspend consideration of all legislative matters then pending in Congress until otherwise instructed by the Society.

Dec. 9, 1908, during the presidency of Dr. Fry, the following resolution was offered by Dr. G. Wythe Cook: "WHEREAS, In the enactment of the Medical Practice Act a large part of the charter of the Medical Society of the District of Columbia was necessarily repealed, and WHEREAS, the Medical Association and Medical Society of the District of Columbia are made up of practically the same individuals, and there is no longer any good reason for their separate existence, be it *Resolved* by this Society that its Executive Committee be instructed to consider what changes are necessary to be made in its charter so that the two bodies may be united into one organization, and to report their conclusions to the Society without delay. *Resolved* that the Medical Association of the District of Columbia be requested to appoint a like committee to that appointed by the Society, to consider the desirability of uniting the two bodies." On motion of Dr. Chappell the resolution was adopted.

Dec. 16, 1908, Dr. Mackall, Chairman of the Executive Committee of the Society, said that the matter of proposed amalgamation of the Medical Society and Medical Association had been referred to a special committee, which committee was still in existence. He therefore asked that Dr. Cook's resolution, adopted at the last meeting, be referred to that committee. Dr. Cook said that he was not aware that the subject matter of his resolution had so lately been before the Society, and moved that the Executive Committee be relieved from consideration of his resolution.

July 4, 1910, Dr. Mackall, President, on motion of Dr. J. Dudley Morgan the Executive Committee was requested to report to the Society, as soon as possible, upon the feasibility of securing such alterations of the charter of the Society as might be necessary to allow of the consolidation of the Medical Association and Medical Society. Oct. 12, Dr. Cook introduced a resolution to amend the charter of the Society so that it might become affiliated with the American Medical Association, and on Oct. 25, at a session of the Medical Association of the District of Columbia, an amendment to the constitution of that body was introduced providing for monthly scientific meetings. This amendment was subsequently defeated.

Nov. 2, Dr. Chappell read a proposal to amalgamate the Medical Society and Medical Association, and offered certain resolutions to carry the proposition into effect. His resolutions gave a succinct history of the circumstances which had led to the necessity for amalgamation, and made an eloquent plea for its early consummation. His resolution called for the appointment of a committee of seven, to be appointed by the President, to cooperate with a similar committee from the Association to prepare the details of amalgamation.

Nov. 9, on motion of Dr. C. W. Richardson the amendments of Dr. Cook to the charter were approved, and the Executive Committee was authorized to use all diligence to secure their enactment by Congress.

Nov. 30, as a substitute for a resolution to accomplish the same purposes introduced by Dr. Hooe, Dr. Adams moved that the Corresponding Secretary invite members of the Association not members of the Society to attend the Society meetings and participate in papers and discussions, until amalgamation could be effected. The motion was carried.

Dec. 7, a communication from the Medical Association was read announcing the appointment of a committee of seven to meet a similar committee of the Society. The members appointed were H. L. E. Johnson, Battle, H. P. Parker, Egbert, Owen, Reichelderfer and Barton. Dr. Barnes was later added *vice* Barton, resigned. The committee appointed by the Medical Society was composed of the following members: G. Wythe Cook, Nichols, H. D. Fry, Chappell, D. Olin Leech, Van Rensselaer and Sprigg.

January 2, 1911, Dr. Richardson reported diligent efforts of the Executive Committee to secure passage by Congress of an amended charter. Dr. Cook reported the present status of negotiations to secure amalgamation. Nothing conclusive had been accomplished. Dr. Nichols proposed an amendment to the constitution, designed to afford a working foundation upon which amalgamation might be more readily accomplished. The proposed amendment was ordered to be printed and distributed.

March 8, Dr. Cook informed the Society that the bill to amend the charter had failed to pass Congress. April 19, Dr. Cook reported a resolution from the committee on amalgamation to the effect that if the charter of the Society should not be amended in the extra session of Congress by July 1, it be abandoned as an obstruction to amalgamation.

April 26, Dr. Cook presented a report of the committee on amalgamation resolving that the proposed amalgamation be deferred until July 1, and if by that date the Medical Society should not have secured an amended charter from Congress, the charter be dropped and the two bodies amalgamated, the name to be adopted by vote, and the body incorporated under the general charter act of the District of Columbia. The committee presented for approval the draft of a new constitution, to go into effect on the adoption by both the Society and Association in joint session.

July 3, Dr. Nichols, of the committee on amalgamation, moved that the proposed substitute for the constitution as amended by the committee be adopted. Carried. Dr. Hooe moved that Dr. Barton, the President of the Society, be directed to notify all members of the Society and Association to attend an adjourned meeting, to be held July 10, to choose a name and elect officers for the new amalgamated body. July 10, a joint meeting of the members of the Medical Association and Society was held to ratify the action of the component bodies, to adopt one constitution, to choose a name and effect organization. On motion of Dr. Cook the formal amalgamation was effected, by unanimous vote, under the name of the Medical Society of the District of Columbia.

Thus harmoniously was effected the great act of amalgamation, and thus harmoniously may its members toil until the end of time.*

CONCERNING THE TENDENCY TO EXAGGERATION AND COMPLEXITY IN MODERN MEDICINE.

With the advent of the Christmas season, and almost as closely identified with it as its turkey and cranberry sauce, come the annual orations. All over the world they are being inflicted upon patient listeners, and so great is the power of imitation and custom that you, fellow members of the Medical Society, must be included among the sufferers.

In considering the exact form which this punishment should take, and knowing that almost any species of chirographic crime would have to be endured, I at first contemplated the presentation of a paper upon some scientific subject. But upon reflection

* July 2, 1877, Dr. Thos. Antisell favored uniting the Medical Society and Medical Association and asking Congress for a new charter, and moved the appointment of a committee to consider the matter. The subject was discussed, but no action was taken. See History of the Medical Society, page 126.

I concluded that the feelings of my audience were entitled to consideration, and I therefore determined to discuss certain topics of more general interest. My address will deal briefly with two tendencies which are very noticeable in present-day medicine. One of these is the tendency to exaggerate the importance and effect of almost everything which pertains to medical science, whether it deals with a proposed cure for a diseased individual or an afflicted community. This tendency should be deprecated, because it is contrary to the spirit of humility and conservatism which should imbue the finite mind of man in approaching the mysteries of nature with a view to their solution, and because it has led and will continue to lead the medical profession into the commission of egregious blunders which naturally diminish the prestige of medicine and lower the respect and admiration of the public for medical men.

The second of these tendencies to which I desire to draw your attention is one which does not affect our relations with the public, but with one another. It relates to the present tendency toward extreme complexity which characterizes our present conceptions regarding questions of medical science, which tendency to complexity is observable in almost every branch of medicine, and is exemplified in the highly complicated theories and procedures which comprise the medical literature of our day and which are held up as indisputable evidence of progress. I desire to take issue with this tendency, and hold to the thesis that the very complexity of a theory, or process, by virtue of the introduction of unnecessary and unknown factors, of the algebraic x, y, z's, is more likely to be fallacious than true, and in proof of this opinion I shall take the opportunity of bringing a few examples, most of them quite familiar, perhaps, to this audience, to your attention.

First as to tendency number one. Medical orations and holiday editorials in our journals will all be found to resemble each other in one particular at least, and that is in the general proclamation that the public estimation of medicine is increasing at a greater rate than ever before. This idea, accompanied by much praise of ourselves, constitutes, as it were, the recitative of our orational symphonies. But it appears to me that it is incumbent upon bodies of scientific men to occasionally reflect whether if, after all, they are considered by the public at their own estimate.

It is true that medical science has added somewhat, in the last few decades, to the great sum total of her facts and observations, but is it not equally true that we have tended consciously or unconsciously, possibly the latter, to exaggerate the importance of these additions in almost every instance, and that we have been continually forced to give up advanced positions into which we have rather precipitately rushed, much to the detriment of our prestige?

I rather think the instances which might be quoted in defence of this thesis are so numerous, and some of them so recent, that we might, perhaps, spare ourselves the pain of a complete enumeration. But here are a few. One dose of salvarsan was to completely eradicate syphilis. That is what the public was told. Have we not been forced back out of this trench? Are not the conservative "I told you so's" gloating in great glee over the verification of their prediction?

A very few years ago the majority of medical men and women arose and solemnly declared their belief that autochthonous or heterochthonous vaccines would be found curative in most, if not all, bacterial infections. And what are we doing now? After having been forced to submit to the slaughter of most of the elements of this proposition and attended to their solemn burial, we are now struggling, manfully it is true, to maintain the remnants of our fond hopes against the victorious army of doubting antagonists.

Had these subjects been approached scientifically and with that degree of humility which much becomes the bearer of a truth, and the slender facts which we possessed submitted, the real worth of the treatment might long ago have been determined and established. As a matter of fact medical men, by claiming everything, run the risk of forcing into temporary oblivion, at least, many excellent improvements and discoveries in medicine.

A similar tendency to exaggeration has accompanied the announcement of every medical discovery which has occurred, in my recollection. I had not quite graduated when the news of the discovery of Koch's tuberculin was flashed over the world. The enthusiasm which marked that event is fresh in all our minds. Likewise is the memory fresh of the humiliation which came upon those who so loudly proclaimed it. As with tuberculin, so with the use of a score or more of specific immune sera which have been heralded to the world in the past fifteen years. The extravagant claims of their progenitors have in each instance given place to humiliating recantation and retraction.

Even the discoveries of the Roentgen ray, the Finsen light and radium, great though they really were and deserving of the gratitude and praise of all classes of people, were announced, not by their discoverers be it said, but by self-constituted prophets of the profession, with the most extravagant claims as to their therapeutic applications.

Although the great body of medical practitioners and scientists is prone to the habit of exaggeration, we find it especially noticeable in those who are occupied with questions of public hygiene and sanitation. There are among public sanitarians, particularly among those who occupy positions in municipalities, a large number of highly cultivated and scientific men, and in the majority of such instances the charge of exaggerating the import-

ance and effect of their work cannot be sustained against them. The very difficulty of carrying into execution the simplest principles of their science teaches them a demeanor of conservatism and humility. But to the dilettante or amateur in hygiene nothing is impossible to sanitary science. No human plague exists which cannot be scientifically eradicated if only the rules which they propose are followed. Tuberculosis and typhoid fever may be legislated from the earth, and infantile mortality may be regulated by the code. If the death rate or morbidity be low it must be due to the observance of sanitary law.

The truth is that the many problems relating to public health and hygiene can only be solved a little better in each generation as the science upon which they are founded develops, and a clean confession of the limitations of our knowledge can only be productive of good. The public naturally loses confidence in medical science when annually for a given calamity a new remedy is proposed, hailed first as a panacea but soon dropped for something else. All our remedies to lessen the mortality of infants, from mathematical feeding to pasteurization, have been heralded as panaceas instead of as mere experiments to be carried out upon the body instead of upon the guinea pig.

It may be said, however, in extenuation, that it is not always the medical profession which is solely to blame for the exaggeration which so often accompanies the announcement of medical discoveries. The public press is guilty of the grossest abuses in this regard, and some of the obloquy which has come upon us is the direct result of the lack of conscience in newspaperdom. Only last week, in the press of our city a flaming announcement was made of the discovery by a Leipzig professor of a method of skiagraphy which would permit of the exact examination of all the soft parts of the body by the use of essential oils which, when ingested, would render all these parts visible. If the real truth in scientific matters would satisfy the correspondents of newspapers the press might be of great service to medicine by announcing discoveries to the rank and file of our profession much earlier than they could ever be obtained through scientific journals. But unless an ordinary news item may be made scandalous, or a scientific discovery may be distorted into gross exaggeration, it possesses no interest to the press of our country.

All the sciences, which have concurred in the study of disease, have in the beginning produced a natural bound of curiosity and enthusiasm as unexpected discoveries have been revealed. They seem to disclose a new aspect to the study of disease. They seem to afford an explanation to problems up to the time unsolved. As Widal, in his inaugural *leçon* upon accepting the chair of internal pathology in Paris, last March, said, "du sillon qu'elle venait à peine de creuser se levait une moisson si riche que toute l'activité scientifique s'absorbait dans cette voie nou-

velle, et que les recherches anciennes etaient pour un temps délaissés. Chaque epoque a eu ainsi sa marche a l'étoile."* This enthusiasm, when kept in natural bounds, is a glorious thing. It acts as the intellectual enzyme, as it were, which stimulates the scientific spirit of the world to renewed efforts. How else, indeed, would medicine have progressed had it not been successively dominated and oriented by pathological anatomy, by bacteriology and etiology, by physiology, by physics and by chemistry?

There ought not, however, to be any such thing as a hierarchy among the medical sciences. All are equally important, and, while it is true that the opinions of medical men will be dominated by the discoveries of a new science, or even by intellectual movements which are not science, such influences will be only temporary and will be shaken off as soon as the object is accomplished. In this way medical thought will escape the baneful effects of systems which weighed so long and so heavily upon it and prevented its development in the past. But to exaggerate the importance of each discovery as it is made, to go beyond the bounds of truth, reason or justice in this representation is to be deprecated. After removing the beam from our own eyes, in this respect, we should then proceed to remove the mote from those of the public. The public is entitled to a fair degree of enlightenment upon matters pertaining to medical science, and this enlightenment should be entirely free of all exaggeration. I can see no possible objection to the rational education of the public upon medical matters, especially if the information emanates collectively from our scientific organizations. Such a course would no doubt result in a much more sympathetic relation between the medical profession and the public than exists today.

Finally, the time has about arrived when we might publicly repudiate that little conceit, which may appear naive and sincere to a very few, but is taken at its real value by the majority of persons, that we are all practicing medicine and filling our various positions in society for the mere love of mankind and for merely altruistic and humanitarian reasons. Crookshank, in an address on Public Health before the profession and public in London, a few years ago, in referring to this subject, said: "The English people are not devoid of a crude common sense, and instead of falling into raptures before the picture, so frequently painted by the medical press, of a profession trying to destroy its own means of livelihood, are inclined to think that gentlemen who from pure love of their species propose to saw through the branch of the tree on which they are sitting, must either have little confidence in the cutting power of their saw or have a very just appreciation of their own merits."

Allow me at this juncture to call your attention briefly to the

* Les orientations de la medicine, *La Presse Medical*, 1911, No. XX, 185.

second part of my thesis, namely, the tendency observable in many of our present-day expounders of medical science to prefer a complex and obscure treatment to a simple and comprehensible exposition of their subjects.

Biological problems, it would appear, are difficult enough to solve without complicating their solution by an excessive number of factors; when two factors alone are required to explain a thing, the tendency is to use three. This is directly opposed to nature, for under all circumstances her vast activities are performed on the most economical basis as to force and material.

There are two principal ways in which this tendency to complexity in modern medicine is manifested: First, in the exposition of scientific facts in all branches of medical science, and second, in the generalizations or inductions which constitute the science itself. The whole history of science shows that the great geniuses who have made generalizations based upon the many facts obtained from experience and observation have all been distinguished by the simplicity and clearness with which they have expressed their discoveries; never in a language intelligible only to the culte, but in such simple terms that all might understand. Such was the case with Newton and his astronomical generalizations. Such was the case with Harvey, Magendie, Hunter, Bichot, Laennec, Bernard, Virchow, Pasteur and Koch. The reason, I apprehend, why in our present generation we cannot point to any single genius to be placed on an eminence equally high is because no one has arisen of sufficient greatness to fuse into any simple generalizations the vast mass of objective material which has been collected.

The tendency of our time to render observations and experiments complex, and the speculations derived from these unpragmatic and obscure, will, I apprehend, considerably delay the appearance of such a genius, though it certainly increases the need which all must feel for such an one.

There is indeed a question as to whether we need any theories at all. Even in astronomy, in which mathematics plays such an important part and one, therefore, in which tentative hypotheses might be supposed to be necessary to progress, there are those who hold a contrary opinion, who believe it should remain, first and above all, a science of observation.

The Röntgen rays were originally discovered by their photographic action. The fact that they render a screen of calcium tungstate phosphorescent was discovered by the laborious process of trying out the rays upon a large collection of different chemicals.

The search for truth, notwithstanding its apparent brutality, must be made along the old line of leaving no stone unturned. There is very little chance for the scientific Sherlock Holmes. Inspiration will be defeated by industry. But even theories, no

matter what their complexity, seem to have their life history. From their birth they grow into vigorous maturity. After a sufficient lapse of time they grow old and die. If there was any theory in science which seemed perennial and indestructible it was the theory of the stability of the chemical elements. But the discovery of radium by the Curies routed even this time-honored hypothesis. It was found that radium disintegrates, that it changes into other bodies at a constant rate. If one gram of radium is kept for 1,760 years, only half a gram will be left at the end of that time. Half of it will have actually changed into other elements, one of which is helium.* But the facts of science do not change, and if the chloride of silver is insoluble and the nitrate soluble, it is because they have always so behaved and will in like manner behave until the end of time.

Theories can never take precedence over facts, and in medicine they should always be viewed with some suspicion and by no means with that credulity and assent which the present tendency seems disposed to accord to them. Every scientist, of course, must have in his mind certain concrete pictures of the nature of the units with which he deals; for example, the chemist must have some sort of notion, theoretical, of course, concerning the fundamentals of his science, as of atoms, molecules, chemical affinity, valency, ionization, etc. But he must not mistake these ideas, pure mental imagery, for actual realities, and must ever be ready to shift them. The biologist and the physician must also have their imageries or mental conceptions concerning protoplasm, the cell, immunity, etc., but they must be very careful to regard such ideas as mere working hypotheses and not to consider, for example, that the side-chain theory of immunity actually represents the facts as they are. In fact, if the theory is complex he should view it with suspicion in proportion to this complexity.

The study of the processes which take place in the organism between the microbian cell, on the one hand, and the animal cell, on the other, has revealed a world of biological reactions, constituting the new science of serology. The terms antitoxine, agglutinine, sensibilisine, aggressine, lysine, opsonine, precipitine, and many others, testify to the vigor of the young science in forming its nomenclature.

Early in the history of serology, to be accurate, in 1897, Ehrlich enunciated his famous *seitenketten* or side-chain theory. This theory has exercised a tremendous influence upon serological study in the fourteen years since its announcement. It is chiefly interesting now to be held up as an example of the futility of applying the speculative, one might almost say the imaginative method, to biological science. It constituted, in reality, a beautiful medical fairy story, and when we speak now of the binding

* Address before Brit. Assn. for Advancement of Science, by Sir Wm. Ramsay; *Science*, XXXIV, 1911, page 289.

of the haptophore group to the receptor; of the increased production of the receptors following this binding; of the thrusting off of these increased receptors; we do so about as we think or speak of the fairies, pigmies and hobgoblins of whom we used to read under the student's lamp in Grimm and Hans Andersen.

The great objection to the rise of complex medical theories is that as they become predominant they exercise a deleterious influence upon the minds of scientific men, thus creating a medical system or dogma. The whole past history of medicine is crowded with examples of such philosophical tyrannies, which have been the chief obstacle to progress. We should see to it that no intellectual fetters of the kind shall ever be put upon us. The man with a fact, with an observation, should always take precedence of the man with a theory. Carried away by his hypothesis Ehrlich finally complicated it still further until he had conjured up so many new genii, including his toxins, toxons, toxoids, toxonoids *et al.*, that the theory fell over from mere top-heaviness, and as it fell the concussion of its elements seemed to bring back the mind of that really great man to earth. For lately Ehrlich has seemed to return to the experimental method, the true scientific empiricism which is the foundation of true progress, and has added to therapeutics a thing of inestimable good.

He has given us arsenamidobenzol. Here he started from the fact, long known, that arsenic by its peculiar action upon proteids is more destructive to lower forms of protozoal life than to higher forms, and with the progress already made by French investigators in the formation and action of organic compounds of arsenic as a basis, Ehrlich proceeded to experiment with other organic compounds until one could be found where the toxicity upon the lower cell could be increased while the toxicity upon the higher might be diminished. "606" is the result. It is by no means the end result, for improvement is bound to follow, not by theorizing but by patient examination of every conceivable compound which can be made.

As long as the side-chain theory dominated serology, the hope of therapeutics was constantly led by an *ignis fatuus* in the wrong direction. Everybody hoped, as long as he believed in it, that by a continued juggling of the factors in the hypothesis it might be expected to bear fruit. But none ever came. What it really required was simplification, and this simplification has been recently supplied by Arrhenius, by Bordet and others. Arrhenius applied the simple principle of physical chemistry to the toxin, antitoxin reaction, and Bordet, as is well known, believes that the neutralization of toxin by antitoxin is an absorption phenomenon comparable to the process of dyeing fabrics.* If a piece of filter paper is put in diluted stain it "dyes" a uniform shade. If the piece is torn into fragments and added to the dye the first

* Bordet-Gay. Collected Studies in Immunity; Wiley, New York, 1909.

pieces are stained deeply and the last find no color left wherewith to stain. Similarly, if toxin is added to antitoxin in divided doses the last portions of poison cannot be neutralized, because the first portions absorb the antitoxin to supersaturation. If both are mixed together at once the toxin particles are spread all over by antitoxin. The action which, according to the side-chain theorist, was ascribable to a separate substance, toxone, Bordet explains as toxin partly saturated with antitoxin. Bordet's conception of the toxin-antitoxin reaction is thus very simple, and, being simple, is much more likely to be true.

There is scarcely time to discuss all the applications attempted to be made by Ehrlich for his theory. He attempted to apply it to the phenomenon of agglutination, that is, to the structure and formation of agglutinins, but here also simpler explanations have prevailed.

When the phenomena of bacteriolysis and hemolysis were discovered by serologists the side-chain theory was again dressed up in gala attire. The only change was a little more complexity in the nomenclatural costume. Ehrlich invented the term *complement*, which is a better term in that it is easier to pronounce than the original expression, *substance sensibilatrice*, used by Bordet to indicate the substance present in specific immune sera which is not destroyed by heating to 55 degrees C. Beyond this it cannot be said that Ehrlich enlightened our comprehension of cytolytic phenomena, for his invention of the zymotoxic haptophoric complementophilic and cytophytic group and receptors has tended rather to confuse than to illuminate it. Bordet again comes to our rescue and assumes simply that the sensitizing substance or immune body acts as a kind of mordant on the red cells or bacteria, sensitizing these to the action of the alexine or complement of the blood serum. As to the discussion of the precise nature of the immune body (or sensitizing substance, amboceptor) and the structure of complement or alexine, we have not the time to enter, but the same unnecessary complexity characterizes these applications of the theory as, we have seen, exist in the other uses to which it has been put.

In 1903 Sir Almroth E. Wright* called special attention to the bacteriotropic power of immune serum, and invented the term *opsonin*. The estimation of the content of the blood in so-called opsonins and the study of their variation constituted the determination of the so-called opsonic index. Immediately after the publication of these observations the new expressions "positive phase" and "negative phase" were added to each medical man's vocabulary, and the technique which Wright proposed for measuring the opsonic power of the blood serum was eagerly mastered by scores of laboratory workers. There was, however, one feature about the method which attracted the attention of many

* Proc. Roy. Soc., Vol. 72, 1903.

persons, and that feature was its complexity, and, like all complexities in medical science, it tended to befuddle the minds of medical practitioners and divide them into two great classes: the cult who understood, and the proletariat or bourgeoisie who could not comprehend it.

We shall not go into details concerning the technique of determining the opsonic index, for it possesses now, only eight years since its publication, but an historical interest. But an important lesson attaches to the contemplation of these facts, and a general rule may be safely deduced which should aid us in future situations of a like character. The rule might read somewhat as follows: Whenever a complex theory is proposed to account for a group of scientific observations, and whenever an exceedingly complicated technique built upon such a theory is proposed for its demonstration, it may be predicted that the theory will be proven fallacious and the technique unnecessary. Such has been the fate of the determination of the opsonic index, and such, I apprehend will be the fate of some other complicated methods which are now very much in vogue.

The treatment of bacterial infections by the inoculation of dead cultures, which is considered an integral part of the Wright method, is in reality not so, for it has been in use for a long time. The results of most workers have failed to bear out the original claims for the therapeutic value of the method. It might have been predicted from the start, however, that the very complexity, arbitrariness and systematization of the method would prove the fallaciousness of it and result in its downfall.

The appearance of the Wasserman test for syphilis in 1906* has added another complicated technique to those which the laboratory worker had been forced previously to assimilate. This test is an application of the so-called Bordet-Gengou phenomenon, or the phenomenon of absorption deviation or fixation of complement. The phenomenon in itself is not complex or difficult of comprehension, but it will be well for the uninitiated who desire to understand the matter to begin with a study of the phenomenon itself and not with the details of the Wasserman reaction. To perform the original Wasserman test the following articles were necessary: juice from a syphilitic fetal liver, blood serum or cerebrospinal fluid from the patient to be tested, blood cells of the sheep, inactivated blood serum of a rabbit immunized against sheep's blood cells, and fresh normal serum from a guinea pig.

According to the rule formulated above such a technique cannot survive, and already many signs of decay and decrepitude are visible in the original test. If the test could not be simplified it was doomed to early death. Very soon it was found that the juice of a syphilitic liver was unnecessary; non-syphilitic tissue, either pathological or normal, would do, particularly lipoid, like

* *Deutsche Med. Woch.*, 1906.

lecithin and cholesterin, or even vaseline. In 1909 Noguchi* published his new and simple method for serum diagnosis of syphilis. In this test all that is required is the serum of a rabbit immunized with human erythrocytes, fresh guinea-pig serum, alcoholic extract of organs, or lecithin, and suspension of human red corpuscles. These reagents may be dried on paper slips, which may be kept indefinitely. If an incubator is not at hand the tubes may be warmed in the vest pocket. Even the Noguchi test is not simple enough, and therefore represents only a stage in the progression towards an easier method.

Anaphylaxis.—In 1898 Richet showed that when dogs were injected with certain toxic substances, as eel serum, a phase of hypersusceptibility to the poisons could be aroused. To this phenomenon he applied the term anaphylaxis. In 1903 it was discovered that horse serum injections might give rise to a similar state, and serum rashes were correlated with anaphylaxis.

Naturally the interesting phenomena of anaphylaxis afforded a rich opportunity for theorists and a review of these by Friedberger may be found in the *Zeitschr. f. Immunitäts*, 1909, p. 208.† Friedberger himself advanced one of his own which is strongly Ehrlichan, both in multiplicity of terms and general complexity. Nicolle‡, working in the Pasteur Institute, has also presented a complex conception of the phenomenon of anaphylaxis which is much more Teutonic than French. We shall not have time to go into the details of these theories of anaphylaxis. A brief summary of them can be found in Bull.§ 64, Hygienic Laboratory, by Anderson and Frost, 1910. The views of these two authors upon the nature of anaphylaxis are much simpler than those of the two foreign authors mentioned above; they believe simply that anaphylaxis, or what is the same, hypersusceptibility to a foreign proteid, consists in an increase in the normal power of assimilating this proteid; that this is due to the formation of an antibody, a sensitizing substance; that anaphylactic shock is due to disturbance of metabolic activity of vital cells. Anaphylaxis is to be looked on as a step toward immunity, which itself may be regarded simply as an increased capacity of the organisms to safely and rapidly eliminate any foreign proteid which may gain entrance into it.

The theoretical considerations which have hampered progress in serological science have been carried over into the subject of cancer etiology, but the failure of cancer antitoxin and cytotoxic sera have been so absolute that even those who are most expert in hypothesis manufacture have been silenced. The observation of natural healing in cancer of the lower animals is the great fact upon which the attention of researchers is focussed, and the ex-

* *Jour. Exp. Med*, XI, 1909.
† Kritik der Theorien über die Anaphylaxie.
‡ Ann. Inst. Pasteur, XXII, 1908, p. 26.
§ Studies upon Anaphylaxis.

perimental method now being vigorously applied to the study of the biology of tumor cells is busily engaged in attempting to imitate the mechanism of the natural healing of cancer; and this without the ascendancy of any particular theory or hypothesis.*

With respect to cancer one thing ought to be emphasized, and that is that the ascendancy of any particular theory, as to its etiology, should not be allowed to detract from the old empirical way of leaving no stone unturned in the effort to find a remedy. At the present time the parasitic theory of cancer etiology is in disrepute, and the cancer cell is regarded as one which has escaped from all the restraint of physiological equilibrium. But in so doing it comports itself like a zoölogical parasite, and therefore the chance of finding a chemical enemy which will destroy it and not the host ought to be as good as in other diseases whose cause is known to be protozoid. And yet the terrific influence of modern serological conceptions is so dominating that experiments in this line are not regarded as worthy of consideration.

We will not mention all of the serological tests for cancer which have been recently proposed, nor go into detail concerning its serological treatment. But if we are to judge of this matter by getting the opinion of those who are attempting to synthesize the serological data at hand we are obliged to conclude that all serological methods of diagnosis and treatment of cancer are failures. Concerning diagnosis alone the following have recently been studied: Of specific reactions the method of precipitines, the reaction of fixation of complement, of anaphylactic shock, of intradermo reaction; for non-specific reactions those of isolysines, of antitrypsine, of lipoids and of meiostagmines. The meiostagmine reaction for cancer† deserves to be especially mentioned in regard to my subject because of its complexity and the serious difficulties of its execution. The method requires the preparation of a cancer antigen from cancerous tissue, a factor open to serious chances for error. A special instrument known as a stalagmometer is required, by which the number of drops in the test solution may be compared with those in the control. I believe the method to be devoid of any but a curiosity interest, and will only refer those who may wish to study it to the bibliography appended.

The theories concerning the etiology of cancer are, generally speaking, not complex. This is true of the theories of Cohnheim, Van Hauseman, Oertel, Marchaud, Hauser, Ross, Adami and Bond.‡ This may be due to the very slight knowledge which we possess of all aspects of the cancer problem except the morphological facts. As Bond has written, "The old inquiry still remains. It is, the ascertainment of the kind of environ-

* Abstract of Ingleby Lectures, Bashford; *Birmingham Med. Rev.*, LXX, 1911, p. 1.

† Les procèdès nouveaux de diagnostic du cancer, Herrenschmidt; *Journal Med. Francais*, 1911, No. VII, p. 283.

‡ On Cancer; *The Lancet*, CLXXXI, 1911, p. 349.

mental influence, on the one hand, and the special factor, hereditary or acquired in cell potentiality, on the other, which are independently or conjointly responsible for initiating the process whereby the new characters arise 'innately' in, or are 'acquired' by, cells engaged in neoplasmic growth."

I am much afraid that to continue any further enumeration of examples of complexity in medical theory and practice would become monotonous, and I shall desist, although the subjects of cryoscopy, theories of blood coagulation and a host of complex methods of diagnostic and therapeutic technique offer a rich opportunity to prolong the discussion.

After all, what the medical man most desires and really needs are comparatively simple methods of examination which he can master and by which the secrets of pathology may be revealed, and comparatively simple methods of treatment which are within the grasp of average intelligence and experience. It is for this reason that he worships Heller and Fehling, Widal and Roentgen, Koenig and Babinski, Helmholtz and Laennec, and a host of other medical geniuses, because these men have supplied him with a simple but efficient signal corps for the location of his pathological antagonists and a powerful artillery wherewith to dislodge and rout them.

HYPERTROPHIED OVA OF BIRDS.*

By D. S. Lamb, A. M., M. D.,

Washington, D. C.

A number of specimens have been contributed to the Army Medical Museum that I have called hypertrophied ova. This may not be a good term. The pathological condition is an increase in the quantity of the *yolk* of the egg while it is still in the ovary; of course there is no shell, because that is not acquired until the egg arrives in the genital tube.

The literature on this subject is very scanty. After much research I find that very few authors on birds make mention of it. And yet the women who handle chickens for the table say that they often find these masses. I have found only two statements in the literature regarding this condition: one in Larcher's Mèmoires sur les affections des parties genitales femelles chez les oiseaux, *Jour. Anat. et Phys.*, Paris, 1873, ix, page 567. And a specimen is reported by Rayer in the *Compts. Rendus. Sociètè de Biologie de Paris* in 1863; vol. v., 1864, page 38.

The masses are sometimes as large as the head of a new-born infant, usually oval in shape, yellowish in color when fresh, often

*Reported to the Medical Society, November 29, 1911.

distinctly laminated, and rather brittle. Microscopic examination made by Dr. J. S. Neate of the Museum revealed a homogeneous mass, finely granular, and with clumps of calcium crystals; the staining was very feeble; there was no distinct structure.

Sometimes these masses are as hard as cartilage; sometimes a condition is found that to the naked eye suggests tuberculosis, but is probably not tuberculosis; sometimes the mass is very dark, like a melanoma, and sometimes cystic.

So far as I know there is nothing to correspond to this condition in mammals; nor do I find any mention of its occurrence in the eggs of reptiles or amphibia, although it would seem that the condition might occur in them as well as in birds.

VACCINE THERAPY IN DISEASES OF THE EAR, NOSE AND THROAT.—ABSTRACT.*

By Virginius Dabney, M. D.,

Washington, D. C.

The reports of McDonald[1], Weston & Kolmer[2], Conners[4], Christie[7], Jacobs[8] and Sill[23], covering some 300 cases of acute and subacute otitis media, show many interesting things about this disease, but chiefly that three times as many were cured in the space of 30 days as was experienced without the use of vaccines. These writers do not give as much encouragement in the vaccine therapy of chronic cases as the author thinks the method merits, taking into consideration the cardinal fact that all chronic disorders are less amenable to treatment than the acute.

The preparation of the vaccine is the one prerequisite to success, and failures are due to faulty technique in its preparation, or to failure to secure the causative organism; of course, vaccines can effect no permanent cure where there is caries, nor can they supplant surgery in its proper field. The following organisms have been found to be the agents of suppuration in the author's cases, though they were accompanied by others, which were determined not to be causative. The doses are based on the adult, and the author is now of the opinion that they are rather conservative in size, inasmuch as no report of any permanent injury from accidentally large doses has been made, and also greater improvement has occurred with the cases of the writer when they were able to receive larger doses.

Staphylococcus albus and aureus, 250 million; streptococcus pyogenes, 25 million; bacillus of proteus type, 30 million; bacillus pseudo-diphtheriae, 40 million; bacillus pyocyaneus, 60 million; bacillus Friedländer encap., 75 million. Injections to be

* Read before the Medical Society, November 15, 1911.

repeated at intervals of 4 to 7 days, increasing one-third, depending on the reaction.

In throat infections vaccines have appeared to exercise a localizing and limiting effect, which is strictly conservative and complemental to nature. Three acute infections of the tonsils, simulating peritonsillar processes, were aborted in one case in 12 hours, and in another in 24, when the disease had been unresolved and fulminating for 7 days and 2 days, respectively. Another prominent effect of vaccines is the building up of the patient's physique, which is not to be satisfactorily explained merely by the cessation of suppuration, but is definitely accounted for by the part the vaccine plays in preventing the absorption of poison in place of food, to put the matter roughly and briefly[22]. This is especially shown in the chronic suppurative ear cases, of which 3 out of 7 gave cures, 2 vast improvement and 2 no change; the 2 improved cases are still under treatment. Similarly under vaccine therapy the stubborn sinuses, left after the various mastoid operations, showed reparative changes, and the patients improved in appetite, color and spirits. Thus, a sinus that had resisted long treatment (5 months) healed in 5 weeks; another of 6 months' duration yielded to vaccine in 7 days. The table of the author's cases shows other cases, and other ear diseases that have been overcome by vaccines in very little time.

Owing to the constant stream of bacteria that flow in and out of the nose, and to the concealment of the outlets of the accessory sinuses behind structures, rendering it necessary to either puncture the walls or remove part of the structure itself, it is difficult to secure the causative organism, except when contaminated by other agents, or without the employment of minor surgery, which would somewhat confuse the therapeutic picture. All in all, the use of vaccines in nasal diseases has not been conclusive or satisfactory in the writer's hands, though theoretically there is no reason why it should not be as useful here as elsewhere.

Conclusion.

All vaccines should be autogenous, but the stock preparations are very efficient if they be composed of several virulent strains. No claim of infallibility is made for vaccine therapy, as it is intended to supplement other treatment, and when so used it will materially assist in the convalescence. In all forms of tonsillar infection, otitis media, sinuses following the mastoid operations, and furunculosis of the canal, this form of treatment is of undoubted benefit, as attested by the accompanying tables.

All the laboratory work and the arduous preparation of the vaccines have been done by Dr. John S. Neate, to whose care and knowledge of vaccines is due the credit for the success attained in their use by the author.

Cases of Other Observers.

Author.	Disease.	Cases.	Cured.	Imp'd.	No change.
McDonald[1]	Subacute otitis media	13	13	0	0
	Chronic otitis media	17	3	5	9
Weston & Kolmer[2]	Subacute otitis media	100	83	10	7
Patterson *et al.*[3]	Subacute otitis media	10	7	0	3
	Chronic otitis media	17	3	3	11
	Acute maxillary sinusitis	6	6	0	0
	Chronic maxillary sinusitis	3	3	0	0
	Chronic frontal sinusitis	5	0	0	5
	Chronic ethmoidal sinusitis	3	1	1	1
Conners[4]	Subacute otitis media	7	2	3	2
Mosher & Kerr[5]	Atrophic rhinitis	10	0	10	0
Fisher[6]	Atrophic rhinitis	1	0	1	0
	Hay fever	1	1	0	0
Christie[7]	Subacute otitis media	6	6	0	0
Jacobs[8]	Chronic otitis media	6	2	4	0
Thomas[9]	Chronic otitis media	1	0	0	1
Hoobler[10]	Chronic otitis media	2	2	0	0
	Mastoiditis	1	1	0	0
Harris[11]	Coryza	1	1	0	0
Benham[12]	Coryza	5	0	5	0
Skillern[13]	Atrophic rhinitis	2	0	2	0
Beck[16]	Chronic frontal sinusitis	3	0	3	0
	Chronic otitis media	7	0	7	0
Conners[4]	Mastoiditis	3	0	2	1
Scott[17]	Mastoiditis	1	1	0	0
Goadby[20]	*Chronic maxillary sinusitis	14	6	8	0
Sill[23]	†Subacute and chronic otitis media	124	70	22	5

Author's Cases.

Subacute otitis media	5	5	0	0
Chronic otitis media	7	3	2	2
Tonsil infection	4	4	0	0
Furun. canal	5	5	0	0
Mastoid sinus	6	4	2	0
Acute mastoiditis	1	0§	1	0

BIBLIOGRAPHY.

1. *Journal A. M. A.*, June 2, 1911.
2. *Journal A. M. A.*, April 15, 1911.
3. *Laryngoscope*, September, 1910.
4. *Arch. Otology*, 1908.
5. *Boston Med. and Surg. Journal*, 1909, CLX.

* Drainage in all cases.
† Three operated for mastoiditis; 24 disappeared; stock vaccine used.
§ Under treatment; 3 injections only, but benefit very marked.

6. *Yale Med. Journal*, 1910, XVI.
7. *Journal A. M. A.*, 1910, LIV.
8. *Cleveland Med. Journal*, 1910, IX.
9. *Journal A. M. A.*, 1910, LIV.
10. *Arch. Pediat.*, 1909, XXVI.
11, 12. *British Med. Journal*, 1909, II.
13. 14. *N. Y. Med. Journal*, 1908.
15. *British Med. Journal*, 1909, II.
16. *Laryngoscope*, 1908.
17, 18. *British Med. Journal*, 1909, II.
19. "Diseases of the Nose and Throat," p. 237.
20. K. M. Goadby, *Jour. of Laryng.*, XXIII, Nov., 1908, p. 624.
21. H. M. Stoner, "A Résumé of Vaccine Therapy," *Am. Jour. Med. Scien.*, Feb., 1911.
22. Emery, "Immunity and Specific Therapy," pp. 94–5.
23. *Med. Record*, Aug. 10, 1910; also, *N. Y. State Jour. of Med.*, April, 1911.
24. *Practitioner*, London, LXXX, 1908, p. 703.

Dr. McKimmie had been following the literature bearing upon this subject with much interest, and he felt more and more impressed with the notion that the future will give clearer and more positive indications for the use of vaccine therapy than investigations up to this time have been able to afford. The paper was very timely and Dr. Dabney was to be commended for the hard labor that it bore evidence of. It seemed to Dr. McKimmie that acute cases do not offer the best field for this kind of therapy; those reported by Dr. Dabney seem to have run the usual course common to the several diseases. It seemed to Dr. McKimmie most likely that vaccine therapy will prove of the greatest value in chronic cases; in that type of cases with some nutritional defect, in which the usual kinds of treatment do not produce any effect, vaccine therapy will probably prove a brilliant advance.

Dr. W. P. Carr said that experience had convinced him of the practical utility of vaccines of the gonococcus and the staphylococcus aureus in infections with these bacteria. He had in a number of instances employed with great advantage vaccines which had been prepared for him by Dr. Neate. We meet with certain cases with no resistance to infection, as shown by the very rapid spread of infection and by the tendency to metastasis; in such cases the use of vaccines may prevent a fatal issue.

Dr. Charles W. Richardson had profited by the paper. His remarks in discussion would not be based upon experience with vaccine therapy, for he had not thus far employed the method. The subject is a new one, and it seemed desirable to await further reports and more marked advances in the method before accepting too much as proved. The indications for employing vaccines should be more clearly drawn. It seemed to him that many chronic mastoid cases with diseased bone at the bottom of the process will not respond to vaccine therapy. [He cited several instances in which proper surgical attack upon the diseased bone

was followed by even quicker healing than in the cases cited by Dr. Dabney.] It seemed to Dr. Richardson that the future will, without doubt, develop much of value in vaccine therapy. In sinus disease the literature already indicates that the method is without value. He recognized that his remarks lacked the proper foundation of experimental work such as Dr. Dabney had done with so much industry.

Dr. Hagner said that it seemed to him that Dr. Dabney had made no extravagant claims for vaccine therapy; he had merely related the facts as they appeared in the course of his work in this line of research. There need be no apprehension as to the effects of administering vaccines; the injections do not occasion any pain to the patient, unless it be a transient local soreness following an overdose.

Dr. Nichols said that when any new method is put forward there is a tendency to expect it to succeed in all cases. This tendency manifested itself strongly when diphtheria antitoxin was first put forward; it was confidently expected that antitoxins could be developed for all bacterial diseases; but no success had been achieved, except in a measure with antitetanic serum.

Vaccine therapy has had three notable successes: in recurrent furunculosis, in typhoid prophylaxis, and in gonorrhoeal arthritis.

If curative antibodies are to be produced, the blood must freely circulate in and about the site of infection; if there is any mechanical obstacle to the free circulation of the blood, no good results will follow the use of vaccines, but that will not be the fault of the vaccines. The principles involved are well illustrated by the beneficial effects of incising a boil or of opening the abdomen in tuberculous peritonitis. This fact may explain some of the failures in the use of vaccines, as, for example, in sinus disease; the circulation may not be free enough to permit of the formation of antibodies in sufficient quantity to cause a cure. Of course, exclusive reliance should never be placed on vaccine therapy; all rational auxiliary measures should also be employed. It is difficult to measure the value of vaccine therapy, because in the nature of things there can be no control. Also, disrepute of the method arises from the fact that it is so often used as a last resort. Fortunately there have been some forlorn hopes in which the results of the use of vaccines have been so brilliant that the conclusion has inevitably followed that the vaccine had some marked effect in changing the outcome of the case. While the results have been so brilliant in a few cases, the lack of brilliancy of result in other cases should not entirely discredit the method. Nor is there any good reason to wait until all other methods have been proven inefficacious before trying vaccine therapy.

His own results with pseudodiphtheria vaccine have not been

so good as Dr. Dabney's; but with the pneumococcus and the staphylococcus the results have been brilliant. There can be no doubt that vaccine therapy has a large and valuable field.

Dr. Randolph would like to add to Dr. Nichols' remarks a few related observations. The primary principle of therapy is to remove the cause. With the exception of surgical methods, our resources heretofore have been limited to the emptying of the bowels and ridding the body of the organisms of malaria and syphilis by remedies empirically discovered. Vaccine therapy is thus our first direct effort at the removal of the cause of disease. Five years ago Sir Almroth Wright opened the way here to this hitherto unknown field. This was one of the most important events in the history of the therapy of internal medicine. The method is still in its infancy, but Dr. Randolph believed that it will be slowly developed until we will in time be armed against all infectious diseases.

Dr. Roy said that his experience was limited to two cases: one, a man with a chronic abscess about a tooth and of a year's duration. Dr. Nichols had made a staphylococcus vaccine which had cured the man after four injections. Second, a woman with pneumonia and delayed resolution; illness of four months duration. A vaccine made by Dr. Nichols caused a very rapid improvement in this case.

Dr. Dabney said that the criticism had been made that acute infections at times get well as rapidly without vaccines as with their use; he had himself reached the same conclusion in his paper. It is, of course, obvious that nothing but the use of the chisel or curette will allow of the closure of a sinus, with dead bone at the bottom. Of course there are many cases of illness which will recover without treatment; but that obvious fact does not prevent the daily administration of much medicine of doubtful utility. He would reiterate in closing that in some acute infections and in many chronic ones the use of a properly chosen vaccine will be productive of much good.

Light Work.—A weather-beaten damsel, somewhat over six feet in height, and with a pair of shoulders proportionately broad, appeared at a back door in Wyoming and asked for light housework. She said her name was Lizzie, and explained that she had been ill with typhoid and was convalescing.

"Where did you come from, Lizzie?" inquired the woman of the house. "Where have you been?"

"I've been workin' out on Howell's ranch," replied Lizzie, "diggin' post-holes while I was gettin' my strength back."—*Lippincott's.*

CASES ILLUSTRATING RATIONAL TREATMENT OF HYSTERIA WITHOUT MINUTE PSYCHOANALYSIS.*

By Tom A. Williams, M. B., C. M. (Edin.),

Washington, D. C.

By Hysteria, is not signified general emotionalism or nervous excitement; nor will consideration be given to cases of simulation, nor querulous psychosis. And, of course, psychasthenia and neurasthenia, as well as lower neurone disorders, will not enter into the discussion.

It is not the form or aspect of the symptom which entitles it to the designation hysterical.

The criterion of hysteria is its genesis; for the methods of psychopathology do not differ from those of somatopathology in seeking an aetiological classification.

Babinski has brought order from chaos by limiting the term hysteria to disorders generated by suggestion, and excluding all other disorders from this group. The justification of this classification has been given at length elsewhere, so I shall not discuss it here. I have selected from my records a series of cases which seem best to illustrate how success is to be attained in treating hysteria; for they show how a thorough appreciation of the part played by suggestion in aetiology leads to a scientific therapeusis.

In this therapeusis, suggestion plays only an insignificant part; indeed some of the cases illustrate the failure of suggestion as against the success of enlightenment, rational persuasion and re-education of the patient's erroneous attitude of mind; these are the means of giving the patient a relief which is likely to be permanent; whereas the crude *legere de main* constituted by most suggestive measures, even if successful in removing a symptom, only accentuates a patient's liability to relapse by further increasing the suggestibility.

For convenience I have divided the cases into three types:

A. Where the causative suggestion is found to originate in some organic disease. This is the commonest type and the most practically important because the hysteria often creates far more functional disability than does the disease which suggests it.

B. Cases in which the causative suggestion was not discovered because of insufficient phychoanalysis; but in which the secondary effects of the undiscovered suggestion which had become a habit were removed by psychomotor discipline, and the tendency to further hurtful suggestions was minimized by psycho-therapeutic

* Read before the Medical Society, November 22, 1911.

measures consisting of the readjustment of the patient's point of view. These cases are not uncommon in practice, are rarely cured either by mediate or immediate suggestion, and require a knowledge of psychotherapeutic technique for their successful treatment.

C. Cases of hysterizability whether innate, from family predisposition, or acquired, usually in childhood on account of improper upbringing and lack of education in self control, and against impulsivity and inattention. These cases are in want of pedagogical as well as medical assistance; but as those who usually come to the doctor do so because their ailment is supposed to be physical, the physician must become pedagogue towards these patients, at least until the false ideas as to their physical states which have arisen from suggestion have been transformed.

It is not necessary to illustrate in detail the mechanism by which suggestion produces symptoms; for that has been done in several preceding communications: The Genesis of Hysterical Symptoms in Childhood, *Med. Record*, 1910; The Function of the Neurologist, *Med. Record*, 1911; Hysteria and Pseudo-Hysteria, *Amer. Jour. Med. Sci.*, 1910. Besides, many of the following cases will incidentally reveal the pathogen of their symptoms.

A. CASES WHERE THE CAUSATIVE SUGGESTION IS FOUND TO ORIGINATE IN SOME ORGANIC DISEASE.

Case I. *An Incapacitating Hysteria Engrafted Upon a Haematomyelia of the Right Hand and Arm Segments.*—A man of 20, apprenticed mechanist since the age of 16, was seen with Drs. Conklin and Lewis Taylor in June, 1911. Two years before, he had dived to the bottom of a creek. The concussion which ensued kept him in bed with severe headache and unable to move for three days. Urinary incontinence lasted one day. He vomited at first. For nearly a year, he was unable to walk without severe staggering; and his speech had been very difficult, and still remained slow. He complained also of great sleepiness and difficulty in holding his water; so that he was quite unable to go to work, more especially as the right hand was partly wasted and paralyzed, and he feared that what he knew to be an organic nervous disease might be aggravated by exertion. There was loss of sexual power. The boy was normal with the exception of the following abnormalities:

Reflexes.—The right plantar was absent, but there was inversion of the foot on stroking the sole. The right triceps was diminished.

Motility.—There was weakness of the extensors of the 3d, 4th and 5th digits of the right hand to an extreme degree. The opposition of the thumb was not quite so weak. The grasp of the hand and flexion of the wrist were relatively stronger. The

abduction of the wrist was strong, the adduction of the fingers was quite weak. There was no other distinguishable weakness of the forearm.

Sensibility.—He complained of a perpetual tingling down the right leg, which occurred with each beat of the heart, night and day, except during sleep. But there was no difference on the two sides in the perception of coolness and warmth; and the sense of attitudes was now normal, although he stated that for two months he was unable to recognize the position of his limbs. But I could not satisfy myself that he really felt less intensely, as he alleged, on the right leg when stimulated by the tuning fork and the point of a pin; so that this hypoaesthesia might have been suggested during my examination. A suspicion of its psychogenic nature was corroborated when I found that although he declared he would sway when he closed his eyes, he did not actually do so when his balance was deprived of the assistance of his vision while I pretended to be examining the eyes.

Diagnosis and Prognosis.—The abnormalities of the reflexes, motility and subjective sensibility, as well as the slow speech and difficult retention are due to organic changes, very probably haematomyelic, resulting from the blow on the head in diving. They are not amenable to treatment; but they are by no means incapacitating; for even the grasp of the right hand was fair and the right thumb could be opposed so that he could handle a tool. The prognosis as to efficiency was therefore good.

Treatment.—Accordingly he was explained the organic nature of part of his difficulty; he was also told that the disease was not progressive, and would not be exaggerated by work, which would, on the contrary, improve him in every way, and very likely rid him of his heavy feelings. I recommended him therefore to begin work, and behave as if he were quite well. This he did, with the result that he continues at work, and is in excellent condition at the time of writing, six months later.

No commentary should be needed to show that this boy's idleness proceeded not from actual disability but from the ideas which he and his people held regarding his condition. He was the victim of a false fixed idea that he was gravely ill; and this suggestion was the cause of his incapacity when I saw him; while the organic destruction of the central nervous system had at that time no direct significance in that respect.

Case II. *Hysterical Neuralgia Relapsing Obstinately After Suggestive Treatment.*—A man of 78 was referred by Dr. Sterling Ruffin on account of intractable neuralgia in the right side of the head and neck. It was said to occur paroxysmally after swallowing or eating and to be relieved by pushing the thumb into the neck below the ear and pressing with the fingers along the zygoma and temple. Two years before, he was upset from a mow-

ing machine onto his head and rendered unconscious for an hour and a half. In consequence, he had to remain nine weeks in the hospital in great pain, and was speechless for seven. Speech had suddenly returned. He has had pain ever since, except for three months, during which Dr. Wells removed it by intrapharyngeal medication.

On examination, no abnormalities were found; but the patient complained of great tenderness on the right side half way up to the vertex, especially along the temporal artery. This sometimes reached the parietal eminence. There was also tenderness in the neck behind the ear; but I could not satisfy myself that it was confined to the distribution of the posterior auricular nerve. The examination, however, was unsatisfactory, as the patient shrank so violently that I could not exclude an actual neuralgia of peripheral origin, which, however, seemed inconsistent with the history of its removal by medication of the pharynx. Before I had reached a conclusion, the patient ceased attendance, and has been lost trace of. But I include the case as a very probable hysteria induced by bodily injury, and cite it to illustrate the tenacity of a false idea fixed by previous appeal to direct medication by the suggestive influence of which it has been relieved. Nothing is more unfortunate for a patient's future than the suggestive therapeutics which uses as a vehicle some physical agency. This masquerade only intensifies a patient's false belief that his disease is physical, which much increases the difficulty of future treatment. The failure in this case was attributed to my own uncertainty as to the genesis of the condition.

Case III.—A woman of 41 was seen with Dr. Nichols because of severe neuralgia of the left face, left hemiparesis, peculiar dreamlike crises, hysteria and nervous breakdown. An osteomyelitis had been present since infancy; she was supposed to have had gallstones ten years before, since when she had been constipated, until relieved by agar prescribed by Dr. Nichols. The neuralgia had occurred from a chill at a funeral three years ago. It had lately been accompanied by headache on the left side, during which the face burns, actually feeling hotter to the touch. Emesis does not occur, and there is no family history of migraine. Six months before, she had fallen on her right hand in an elevator, and next day the left arm was paralyzed. Improvement took place after a verdict against the owner of the elevator and direct suggestion. But she constantly wore a leg brace and walked with great difficulty. She was taking many narcotics and possibly a good deal of alcohol. The dream-like attacks were those typical of toxicosis, and I believed were accounted for by the narcotics in which she had indulged. She was tearful, restless, frightened, and at times querulous from the same cause.

The deep reflexes were exaggerated, the right patellar more

than the left. There was a false clonus* when the left ankle joint was forcibly flexed.

Motility.—There was no tremor, and the diadocokinesis was good. There was no other motor deficiency except an apparent incapacity of the left arm and leg. In reality, however, the resistance of these was quite good when *she was unaware that I was testing it;* and the unconscious movements she made in bed were performed without any deficiency. I was able to produce a slight improvement in the volitional movements on the left.

Sensibility.—At first, there appeared to be a loss to coolness, touch and vibration stimuli on the left leg; but it was very easy to suggest that she was mistaken; and she then readily both felt and localized these stimuli, except that she still declared that she could not feel vibrations in the lower limbs, especially the left. I could not demonstrate the falsity of her belief in this respect. There was hyperaesthesia to the pin; and even sometimes to touch, over the left leg, thigh and face; and she declared that the neuralgic points of Valleix were still more sensitive. The visual fields were apparently restricted towards the left, at the beginning of the examination; but a very little address soon showed that there was no restriction whatever of the form field. The red field seemed limited bilaterally. The only other abnormality found was a deformity of the turbinate bone.

Diagnosis and Prognosis.—Although there was some physical disability from the old osteomyelitis, the condition of the reflexes and the absence of marked muscular atrophy showed that her incapacity was not due to organic disease of the nervous system, which would have caused marked reflex differences on one side of the body with spastic phenomena and extensor plantar response or would have produced a marked muscular atrophy, with or without loss of sensibility quite different in type from that found. Besides, the hemiparesis ceased while the patient's attention was distracted, and could be modified by suggestion. It was therefore hysterical; and it was only increased by the leg-brace, which *fortified the patient's faulty notion* regarding her left leg. The so-called hysterical mental state, however, had a quite different source, being in reality toxic, and therefore unamenable to psychotherapy. The prognosis of this, however, was quite good if the cause were suppressed.

Treatment.—(1) To cease taking drugs, using physical measures to promote rest, sleep and improved nutrition, taking a bland diet. (2) Leave off the leg brace. (3) Reëducate the sensibility of the face and leg. (4) Finally explain the nature and genesis of the condition, and reëducate the patient to a better understand-

* By a false clonus is meant a series of contractions of the sural muscles, *produced by the will*, and not due to the successive stimuli by which a true clonus stretches the muscle during recoil of the joint. The false clonus is detected by the irregularity in extent and duration of the individual movements and by the great difference of interval between the several movements. Unless a kymographic record is made the difference is hard to detect unless one is experienced.

ing of herself, and how to prevent a recurrence of her disorder by better planning the somewhat strenuous business life which she led. This Dr. Nichols did, and the sensibility recovered, the paralysis ceased, the dream states no longer occurred, and the patient returned to work a different woman, until alcohol, some months later, produced another breakdown of which I have not the details.

Case IV. *Hysterical Appendicitis.*—A girl of 20 was referred by Drs. Watkins and Stavely because of recurrences of right iliac pain, with nausea and vomiting, but normal temperature and pulse, since three months. Two months before, the appendix had been removed for similar symptoms, and was found little changed, though containing a concretion of lime. At that time, the ovaries and gallbladder were found normal. The pains recurred every few days; and lasted some hours, and were relieved by morphine or the Scotch douche.

She showed only a psychogenic hyperaesthesia in the right iliac fossa, controllable by indirect suggestion. Some colonic atonia, a slight retroversion and intestinal sand could not explain a manifestly psychogenic tenderness. So after a few days, Dr. Watkins, armed by conviction derived from the consultation, entered the fray, and after a struggle of nearly two hours convinced the young woman that determination to conquer a longing for the comforting and anodynes which sickness brings would cure her. She went back to Illinois next day, and remains well.

Such rapid success is not common. The following similar case illustrates the need of persistence in persuasion.

Case V. *Coccygodynic Neurasthenia from Hysteria.*—A girl of 34 was referred by Dr. Lemon because unbenefitted by uterine suspension, amputation of the coccyx and other gynecological measures. She was lying stiffly in bed for fear of hurting the coccyx, with intense right iliac pain and tenderness. I found the latter modifiable by suggestion, as was the stiffness. There was a false, *i. e.,* volitional Koenig's sign, and the reflexes were sluggish. She wore the martyr's smile. She professed anxiety to recover and go to work. The condition was manifestly psychogenetic; but her sister's belief in its organic nature hindered recovery, in spite of the persistency of Dr. Lemon. But at my instigation, he kept persuading, until finally improvement began; and one day the young woman, determined to put it to the proof, went to work, succeeded in the fierce struggle against giving way, and is now more capable than she had ever been before.

Of course the key to each case is that the physician have a clear notion of the mechanism of hysterical fixed ideas, of which the idea of pain and tenderness is not the least frequent; and skill in the technique of psychotherapy.

Case VI. *Hysterical Habit Spasm After Appendicitis.*—A case,

intermediate as to duration of treatment, was seen recently with Dr. I. S. Stone. She had had a dull pain since an attack of appendicitis six years before, but had gone on working in her dairy in spite of it, until it wore her out. After this a spasm of the iliac muscles supervened. She declared herself "nervous because I suffered so intensely." She would start at noises, and could not sleep after excitement; so that she gave up visiting her friends. The only neurological signs were the hyperaesthesia and spasmodicity in the right iliac region.

Treatment.—I taught her to inhibit the spasm by drill, and assured her that the hyperaesthesia would disappear as a result of the operation which Dr. Stone had performed three weeks before. But as the spasm had become a habit, and gave rise to pain by stretching the muscles, she would have to learn to control it by means of a series of exercises in muscular inhibition which I showed her how to perform. She made quick progress at first; but relapsed on account of a physical depression, which I found to be due to disordered metabolism from the egg and milk diet which her recumbent position did not enable her to metabolise. When this was removed, psychomotor discipline was again persevered with, and she returned home almost well two weeks after I first saw her.

B. CASES IN WHICH THE CAUSATIVE SUGGESTION WAS NOT DISCOVERED BECAUSE OF INSUFFICIENT PSYCHOANALYSIS; BUT IN WHICH THE SECONDARY EFFECTS OF THE UNDISCOVERED SUGGESTION WHICH HAD BECOME A HABIT WERE REMOVED BY PSYCHOMOTOR DISCIPLINE, AND THE TENDENCY TO FURTHER HURTFUL SUGGESTIONS WAS MINIMIZED BY PSYCHOTHERAPEUTIC MEASURES CONSISTING OF THE READJUSTMENT OF THE PATIENT'S POINT OF VIEW.

Case VII. *Hysterical Hyperaesthesia Incapacitating Locomotion.*—A young woman, aged 28, whom I saw last spring with Dr. Hardin, to whom she was referred by Dr. Maphis, of Warrenton, Va., in the preceding June, had had a chill, after which she cried. The next day she felt very weak, and the next day she had pain in the knees, she thinks only in the left, with hyperaesthesia. There was also, she says, tenderness of the lumbar spine, and later on in the groin and hip. She was treated by massage, and for four months was relieved. About Christmas-time, these pains recurred, when her sister visited her. There were then nausea and dull pain in the knees, which was persistent and caused her to groan in her sleep.

Examination was negative, except that there was great hyperaesthesia of the patellar region above and below, and there was also hyperaesthesia of one arm. Also the right abdominal reflex was absent, and the adductor reflex was exaggerated on the same

side. I decided that the case was psychogenic, and that afternoon attempted psychoanalysis to seek the origin of the psychalgia. I found two suggestive incidents, one being the visit of this sister on the second occasion, the other being the fact that when first attacked her brother had a severe hysterical spell. He was a consumptive, and she was in fear of consumption. Another fact that might have had significance was that she had been two weeks in a newspaper office during its change of ownership, and was alone with the man in charge much of the time.

Treatment.—As she could stay in Washington only a short time, I concluded that it would be better to remove the effects of whatever had been the source of the hysterical symptoms by psychomotor discipline than to try to pursue psychoanalysis, which might be unfruitful in the short time at her disposal. As the least approach towards the patient's knee would set up a spasm of terror during which adductors, hamstrings and extensors went into spasm, I began a course of gradual habituation, first to the approach of a person's hand toward the knee. Gradually I began manipulation of the patellar region, followed by pressure thereon. I enlisted the assistance of a sister, who attended her in hospital and helped her to accomplish these exercises several times each day. In this way she taught herself in a few days to control the muscles around the kneejoints so as to prevent them contracting when her knee was touched. The pain ceased when the spasm did, as it was in part maintained by the latter. Then her alarm vanished, as there was no reason for it; and she was satisfied that her pain lay in her own power to control. The dangers of prepossession by a fear, in conjunction with the mental vacuity engendered by lack of occupation were explained to show the genesis of false fixed ideas regarding disease, and she was told how to avoid them.

She returned to Virginia in a week quite well, and has remained so now for eight months.

Case VIII. *Barking, Roaring and Bowing Tic Removed in One Day.*—This patient was referred to me by Dr. Thomas Charles Martin. He had been treated for rectal ulcer for some months. He lived in North Carolina, having recently removed there, but not liking North Carolina he wanted to come back to Washington. It is possible that this had something to do with the development of his condition. I was asked to see him, because when he sat down he would utter a series of barks, while at the same time the trunk would go into spasmodic flexion. On stripping him, there were seen strong abdominal muscles and regular bowing of the whole body along with this barking, grunting noise.

Psychoanalysis showed that these attacks had begun suddenly in North Carolina, at 10 P. M., three months before. The signi-

ficant fact was that he had eaten some sandwiches which had been sent to him by his parents in Washington, and that he had been thinking despondently before he went to sleep about how nice it would be to be in Washington. He was also thinking considerably about his intestines, having been under treatment by lavage. However, the exact psychological mechanism was not discovered beyond the few suggestions contained in these discoveries.

Treatment.—I thought it better to remove the effects rather than necessarily to discover the details of the genesis of his tic. So I instituted a course of psychomotor discipline. The tic, which at first had come only when he lay down at night, had later occurred whenever he sat down also, and thus made life a burden. So we began by exercising in the sitting position. I placed him in a large chair, reclining, showed him how deliberately to contract the recti abdominis, and made him perform a series of respiratory movements, as well as the series of recti movements. After a few moments he became capable of contracting either the recti or the diaphragm. That being acquisition enough for one sitting, he was asked to come back the following day. However, he went home and tried the exercise while recumbent at night. The result was that he came back the next morning and said: "Doctor, I am cured. I did not have any spell last night." Two days later, however, he relapsed. But after another discipline, he remains now well.

Thus it is very simple to remove the effects in this rational way. It is so much better than the rough suggestion usually attempted. He had been treated in North Carolina by electricity, which he was assured would remove his spasms. When this failed, he was then treated by direct suggestion. When this failed he was then treated by "the most marvelous remedy known," a drug obtained from some remote country, which was guaranteed to cure, which it did not do. So that the most powerful suggestion failed in a case which was in origin suggested and conformed to Babinski's definition of hysteria, "Susceptible of production by suggestion." For a motor habit had been formed; and the removal of all habits requires reëducation of the patient's volition. Indeed it is only by its action on the will that suggestion does succeed when it does.

C. CASES OF HYSTERIZABILITY, WHETHER INNATE FROM FAMILY PREDISPOSITION, OR ACQUIRED USUALLY IN CHILDHOOD ON ACCOUNT OF IMPROPER UPBRINGING AND LACK OF EDUCATION IN SELF CONTROL, AND AGAINST IMPULSIVITY AND INATTENTION.

Case IX. *Asthenia and Hysterical Hypochondriasis.*—A Swiss motor man, aged 45, was seen with Dr. Randolph at the Garfield Hospital and later referred at the George Washington Hospital. He believed himself very dyspeptic, and was always complaining

garrulously of fugitive pains. He had been easily persuaded that his troubles were all notions, but these quickly returned in spite of Dr. Randolph's attempts. He had fully made up his mind to give up work and return to Switzerland.

Examination showed a normal nervous system with the exception of somewhat overactive reflexes. But the heart was easily excited. The blood pressure was 115 and he was 20 pounds below weight.

Diagnosis.—The details would demand much space to set down; but although the question of undue vasor lability presented itself, the vivacity and changeableness of his complaints made it certain that a large part of his trouble at least was psychogenetic; and I resolved to see how much by the therapeutic test.

Treatment.—After putting him in a passive or hypnoidal state, psychotherapeutic impositions were given. These included the taking of a proper full diet instead of the bread and milk one which was all he thought himself capable of digesting. He was also commanded to exercise by gradually increasing walks and gymnastic movements. After a few days of this, he was persuaded to leave the hospital, and to do housework for further exercise while his wife was working out. He was also given adrenal substance, two grains per day.

A few days later, he felt better, and volunteered the statement "I am coming to myself." He was sleeping better, but still, as usual, dreamed of the home he had left thirty years ago, and "he saw his folks every night." He was given further exercise and recommended to strengthen himself for return to work by eating, exercising and enjoying. He was told that he would be stronger than ever, that he had become sick by taking improper care and ceasing exercise and by unnecessary worrying. After two weeks of persuasion following two days of hypnoidal suggestion, he returned to work; and in a month, he had gained eight pounds and was looking fresh and well, although the pain and indigestion still recurred now and then. The pulse was soft and slow.

Two weeks later he was having flushes and the heart was irritable. I found the systolic blood pressure 130 and the diastolic 77; so I thought it time to reduce the proteins, which I had been giving him in large amounts, and to cease the adrenal. Soon after this, he left the position as motor man and took a place as footman. His good condition and relative satisfaction prove how large a part of his syndrome was psychogenic, for until proper psychotherapeusis was employed, he was in a state of nosophobia which would soon have become chronic. That this was not due to vascular instability was proved by the fact that he recuperated so quickly with proper food and exercise, and that the nosophobia almost ceased while the vasor lability persisted. This case might

legitimately be included in the first type I discuss, but for the absence of demonstration that the hysterical ideas actually arose from the vasomotor irregularities. The very marked suggestibility classes him where I have placed him.

Case X. *Hysterical Phobia in a Child.*—A boy of 8 was seen with Dr. A. L. Tynes, at Staunton, Va., in the autumn of 1911. The preceding May he had developed what his parents called hallucinations, which occurred when he was alone only, for he would go errands and play about if he knew he was in sight of anyone at all. There were no night terrors, although he feared going to bed alone, and his mother or father always accompanied him upstairs. Whenever he was alone a spell would occur. The hallucinations were accompanied by a loud cry and a twisting backwards of the neck and contortion of the body. He was very rarely still, wriggling about nearly all the time in an excitable fashion. His father and maternal uncle are declared to have had similar attacks in childhood. But it could not be ascertained that the parents had not spoken of some of these before the boy. The mother was overanxious, hysterical and very uneasy when the boy was out of her sight, of which the boy was well aware.

Examination revealed no physical signs of disease of the nervous or any other system. In anamnesis, I found him a sensible little fellow; and I ascertained that it was a snake which he usually saw, although sometimes a wild beast would be seen. His shout was really the name of the animal he saw. He could not describe the snake except to say its head was like an eel. He remembered well the first such occasion of fright, and the creature then was not a snake but a rooster. He declared that he was never actually afraid of any animals. Indeed, on one occasion, wearing a red sweater, he chased a bull away with stones. On another occasion, he went into the cellar to look for the bogey-man. He said that his only fear was that of being whipped by his father when he was naughty, and that of this he was "not very frightened."

I could not, in the short time at my disposal, penetrate the psychogenesis completely. My questions soon showed that the hallucinations were not true ones; for when I asked the boy if when he looked round there was really an animal jumping on his shoulders, he had to reply "no;" and that he never actually saw, heard or felt what he feared. He then spontaneously declared "I reckon my imagination gets away with me." I then asked him "Why do you not look round each time you fear the animal behind you?" He said, "It does not give me time to think of it; it comes so quickly sometimes; and I shout and run before I can recover myself." When asked, however, he said he was not easily startled as a rule.

Diagnosis and Prognosis.—Familiarity with the mechanism of

terrors of children enables one to interpret this boy's case as a phobia against being alone, produced by the foolish anxiety of his mother. This affective state was an induced one therefore, produced by the idea of some "dreadful consequences" which might occur to a little boy when not protected by his elders. But the morbid reaction had become a habit; so that even though the initial cause were suppressed, training would be required to overcome the facile inductibility of the terrors. Inhibition of his undue impulsivity should also be undertaken.

Treatment.—Accordingly the following procedures were outlined and the reason for them clearly explained to the boy and his father. Firstly, he must gradually accustom himself to go out alone, first for half a block, then for a whole block, and finally round the corner. While doing this, he could hold himself in hand, his attention fully awake to the need of manly behavior and the importance of recovering from his timidity. Secondly, he must learn to go to sleep without anyone else in the room, remembering what a nuisance is a boy who cannot forego keeping one of his parents constantly at home in the evening. Thirdly, he was shown exercises in slow movement and mobilization by which he could suppress the wriggling tendencies of his limbs and body. His mother should be dealt with rationally too.

Wishing to obtain more precision as to the psychic mechanism, I wrote to the boy asking him to tell me whether he seemed to be in a dream-like or in an absent condition when the fears assailed him. I also, of course, wished to stimulate the practice of the re-educative procedures I had prescribed. The following replies were made, and I have recently heard from Dr. Tynes that the boy remains well.

"My Dear Sir: I beg to thank you for your letter of yesterday to John, Jr., and at the same time report favorable progress in his case. He is now going all about the house and yard alone, and has made a couple of trips to the store where I am employed (about seven minutes' walk) alone. He is certainly very much better than he has been since these spells of fright came upon him. He is getting on well with the exercises that you outlined for him, though he has not yet been able to go to sleep alone. However, he goes up to the room alone, turns on the light, undresses and gets in bed, and holds himself together for about ten minutes, but does not seem able to compose himself sufficiently to get to sleep I am working him up to this as fast as I can, and while I might force him to it at once, I would have to use harsh measures to accomplish it. I am unable to clearly get the idea from him whether after these attacks of fright the animals seem like a dream or an idea. I believe, however, that when he tries to analyze the feeling, that he feels that it was an idea that flashed through his mind at once that these animals were near him, and he knows it was

only in his imagination. I am glad to say that he is making a strong effort to get a 'grip' on himself and I believe that he will succeed. I will let you hear from him from time to time, and if at any time I can answer any questions I will be only too glad to do so as clearly as I can."

"Dear Doctor: I have your letter. I do not see any animals since I saw you. I never did hear or feel them, but used to see them. It is not like a dream. I hope I can soon write you I am well.—YOUR LITTLE FRIEND."

THE DIAGNOSIS OF HYSTERIA.

The mode of treatment of which the cases are examples must be founded upon an accurate diagnosis, more specially where organic or functional disease is present in addition to the hysteria. Indiscriminate use of persuasion, however rational, will bring only discredit to the physician who employs it. The most nice discrimination is required in some cases to differentiate that portion of the syndrome which is psychogenic. (Case III.) And where organic disease of the nervous system is what is simulated, an exact and wide knowledge of neurological signs is essential for a correct diagnosis. (Case I.) For, although hysteria may resemble apparently closely the condition produced by an organic or functional disease, differences always exist, which can be detected, however, only by one versed in the minutiae of clinical neurology. For certain aspects of these, reference may be made to the writings of Babinski and his followers; and to the author's Nature of Hysteria, *International Clinics,* 1908; Simulation of Hysteria, *Amer. Jour. Insanity,* 1910; Reflexes in Hysteria, *Month. Cyclop.,* 1910; Essential Differences of Hysteria and Psychasthenia, *New Orleans Med. Jour.,* 1909; Hysteria and Pseudo-Hysteria, *Amer. Jour. Med. Sci.,* 1910; Differential Diagnosis of Functional from Organic Motor Disabilities, *Archiv. of Diagnosis,* 1908; The Sensibility in Disease, *Amer. Jour. Med. Sci.,* 1909; The Function of the Neurologist, *Med. Record,* 1911.

THERAPEUTICS.

The methods which have been used to attack hysterical fixed ideas may be divided into the following four categories:

I. *Mystical impression.*—This has been used in all ages with powerful effect even upon those who are ostensibly among the most highly educated. A consideration of the mechanism of this method would lead me too far in what is a practical therapeutic presentation.

II. *Suggestion* direct or indirect, whether in hypnosis or not. This method is a very crude one, merely aims at removing a symptom by side-tracking it by using a mental mechanism quite similar to that which has caused the symptom. It is as short-

sighted as the giving of morphine for the pains of appendicitis; for it merely masks and thus perpetuates a condition at the root of the trouble. Moreover, it often fails to remove the symptoms against which it is aimed, a fact beautifully illustrated by Cases IV and V. Its success in Case II was only fugitive. This case illustrates, too, the tenacity of a relapse of a symptom temporarily removed by suggestion.

III. *Emotional appeal.*—It is uncertain if this measure, in its purity at least, is ever the effective force in the transformation of a hysterical symptom; for it is impossible to divorce it from the ideational element upon which it must always rest, even in the most primitive beings. Many psychopathologists believe the contrary, because of the fact that cold intelligence is powerless in therapeutics and requires for a dynamic result the affective constituent needed for conation. But a little reflection makes it clear that the *affect* is, so to speak, only the background of the idea, and that the act or thought (for they are the same thing), which ensues upon psychotherapeutic intervention takes its direction from the idea by which it can be differentiated from other ideas of like affective quality but very different in their effects in accordance with the difference of the controlling idea they present.

For instance: A good example was the cessation of a young woman's infatuation for her lover as soon as the idea of his handsome attractiveness was substituted by Professor Janet by the idea that he was repulsive. This was accomplished by suggestion that she would be unable in the future to picture her lover's face except in the form of that of a pig. Here the affective difference towards this man was not produced by direct emotional appeal, but resulted purely from a change of ideas. Another instance on a large scale is the transformation of many a man's normal affection towards woman into a loathing for her on account of the teaching of the church that she was unclean. The efficient factor in this transformation is the idea. The men still have the same feelings, but they are perverted from their proper end towards an ideal by a conceptual difference not essentially affective.

Business morality, too, affords many illustrations.

IV. *Rational Persuasion, Comprising Enlightenment and Reeducation, Motor, Sensory and Psychic.*—Although psychoanalysis of the whole of a patient's life is very rarely required, as my cases clearly show, yet it can be spared only in proportion as the investigator possesses (1) the diagnostic differentia of nervous disorders, (2) knowledge of psychopathology, and (3) finesse in anamnesis.

Even if the pathogenetic factor is not found by these means, yet reconstruction of the patient's attitude can be begun. In many cases, this is best accomplished by the patient's own physician, as is shown by Cases III, IV, V, and others seen with Dr. Claytor,

already published, *loc. citat.;* but there are some patients who require the frequent adaptations only possible to a psychotherapeutic technician of experience.

It would require far too much space to give therapeutic details or even principles here, although it is unfortunate that there is so far no clear and succinct presentation of the subject. However, most psychotherapeutic literature is concerned with what is really hysteria, although it is often presented under other names.

The most important essential of the successful therapeutist is that he thinks not in artificial categories, but in terms of dynamogenesis, and this not only as regards the source of the patient's hysteria, but equally so as regards the means of disencumbrance to be used. No arbitrary empiricism will succeed. The method of trial and error is fatal; and the quick-trigger suggestionist is an abomination. No treatment should be attempted until a clear diagnosis is made. The patient's coöperation should be enlisted from the first, even although full enlightenment may not be expedient at the beginning. But, of course, strong meat is not for babes; and the dose of psychology must be strictly adapted to the understanding of the sick one.

After all, psychotherapy is merely a combination of special knowledge with good sense and honest purpose. Until these qualities are more common or more readily available, a large number of hysterics will continue to drift from the physician by whom they are not relieved to the Faith Healers and other charlatans whose suggestions they in turn undergo with little more benefit on the whole; for the temporary relief they so often obtain is usually at the cost of an increased hysterizability which is certain to show itself later, if not in symptoms of physical appearance, at least in psychological instabilities most detrimental to the society in which they live. Hence, it behoves the medical profession to instruct the coming generation in the psychological principles which are the groundwork of a prophylaxis and therapeusis of the most prevalent of all human tendencies, hysterizability.

A Conundrum.—Into a general store of a town in Arkansas there recently came a darkey complaining that a ham which he had purchased there was not good.

"The ham is all right, Zeph," insisted the storekeeper.

"No, it ain't, boss," insisted the negro. "Dat ham's shore bad."

"How can that be," continued the storekeeper, "when it was cured only a week?"

The darkey scratched his head reflectively, and finally suggested: "Den, mebbe it's had a relapse."

HISTORICAL SYNOPSIS OF THE DEVELOPMENT OF HYPODERMIC MEDICATION.*

By Charles A. Pfender, M. D.,

Washington, D. C.

Pain has ever been a potent factor in stimulating the inventive genius of man. Methods of relief employed hundreds of years ago, such as blistering, for instance, are still in vogue, but the progress of medical science has evolved new methods from time to time.

Among the first local measures employed to relieve suffering was the enepidermic method, in which plasters, blisters, etc., were simply applied to the surface of the skin as near to the seat of pain as possible. This was followed by the iatraliptic or epidermic method, which is an advance over the preceding method in that friction is employed for the purpose of stimulating absorption by the skin. The earlier physicians were quick to appreciate the absorptive property of the skin and promptly utilized this means of medication.

Third in order is the endermic method proposed by Lembert and Lesieur, "in which the obstacle which the epidermis offers is overcome by previously removing it." This is a heroic form of treatment and not generally applicable if for none other than cosmetic reasons alone.

Inoculation was next advanced. This method had been used extensively for the introduction of smallpox and cowpox virus into the system, and in 1836 the French surgeon Lafargue, of St. Emilion, proposed this measure for the application of remedies. He practiced an incision with a small lancet and stuffed the opening thus made with morphine or other powdered drugs. Unfortunately he became so firmly attached to his method that he found it impossible to be weaned therefrom even after a far superior method of administration found more universal favor.

None of the methods known up to this time proved entirely practical and effective. The relief of pain was slow in accomplishment and not infrequently the results of treatment wrought far more havoc than the original disease or symptoms which had indicated their employment. This was particularly true in stubborn cases of neuralgia. Oral medication was barred in many cases on account of idiosyncrasies to narcotics, and in other cases where it was resorted to, relief was so long delayed that intelligent and sympathizing physicians were incited to look for more rapid and effective measures. The recognition of this crying need led to the discovery of the hypodermic method of administering narcotics in solution.

* Read before the Medical Society, November 8, 1911.

In May, 1912, sixty-eight years will have elapsed since hypodermic medication was first practiced. A review of the literature would lead one to think that Alexander Wood, of Edinburgh, Scotland, was the first to introduce fluid solutions of drugs into the human system by means of injections under the skin. In fact, many able writers and usually careful reviewers unite in crediting this intrepid Scotchman with the discovery of this wonderful accessory to the physician's armamentarium. As a result of these writings I shared the same opinion. Unwilling to accept these oft decried reviews, I dug down into the originals and found that an Irishman, almost ten years previously to Wood, had practiced hypodermic medication for the relief of pain in neuralgia. Since the honor of the discovery of this method of medication has been awarded to Wood it would probably be time well spent to enter a little more deeply into this phase of hypodermic therapy.

A careful study of the literature brings to light several reasons why this point of priority has remained so long unsettled. The explanation resides, perhaps, in the fact that the Irish surgeon was of a more retiring nature and less prolific in his writings than the Scotch physician. It is certain, at any rate, that he was far less aggressive than the Scotchman, who dearly loved to expound his convictions, and could always be found the center of an animated discussion of medical affairs. Another reason, and an important one, is to be found in a typographical error in the *British Medical Journal,* August 28, 1858, wherein is contained an article from Wood's pen, which has been quoted from by many medical writers. To this point I will return later.

A comparison of the few articles published by the Irish surgeon Rynd and the more abundant contributions of the Scotch physician Wood shows that the former is fully entitled to the honor of the discovery of the method of subcutaneous introduction of fluids for the relief of pain, while to the latter belongs the credit of having widely disseminated the knowledge of this method among the medical profession, independently of Rynd's earlier work. Wood's persuasive and entertaining style of writing, supported by Hunter's enthusiastic acclaim, prompted the foremost men of England and the Continent to seriously consider this therapy and thus led to the universal introduction of hypodermic medication.

In my attempt to present corroborative evidence in order that we may give "honor where honor is due," I shall take the liberty to quote from the writings of both men. Rynd states that "the subcutaneous introduction of fluids for the relief of neuralgia was first practiced in this country by me, in the Meath Hospital [Dublin], in the month of May, 1844. The cases were published in the *Dublin Medical Press* of March 13, 1845." I sought this reference, and found it to be merely a brief note on two cases of

neuralgia in which he introduced fluids subcutaneously. In no way did he intimate at that time what form of instrument he employed: he simply states that he used an instrument "made for the subcutaneous introduction of fluids in affections of the nerves." The editor of this journal assisted him ably in the suppression of the report by placing it in the most obscure corner at his disposal.

In 1861 Rynd published the following description of his instrument which it is presumed he employed in his first two cases. You will observe from the cut that I have had made that this was a gravity instrument (Fig. 1). He says "The canula (A) screws on the instrument at (B); and when the button (C), which is connected to the needle (F), and acted on by a spring, is pushed up, the small catch (D) retains it in its place. The point of the needle then projects a little beyond the canula. The fluid to be applied is now to be introduced into the canula through the hole (E), either from a common writing pen or the spoon-shaped extremity of a silver director; a small puncture through the skin is to be made with a lancet, or the point of the instrument itself is to be pressed through the skin, and on to the depth required; light pressure now made on the handle raises the catch (D), the needle is released, and springs backwards, leaving the canula empty, and allowing the fluid to descend. If the instrument be slowly withdrawn, the parts it passes through, as well as the point to which it has been directed, receive the contained fluid; and still more may be introduced if deemed expedient."

"The small instrument is for operations on superficial nerves, the larger one for deep-seated nerves; for though it is not necessary to introduce the fluid to the nerve itself to ease the pain, still the nearer to the seat of the pain it is conveyed the more surely relief is given."

Continuing his remarks, he further states "Since then I have treated very many cases, and used many kinds of fluids and solutions, with variable success. The fluid I have found most beneficial is a solution of morphia in creosote, ten grains of the former to one drachm of the latter; six drops of this solution contain one grain of morphia, and a grain or two, or more, may be introduced in cases of sciatica at one operation with the very best effects, particularly if they are of long standing; or even of tic in the head and face, with equally beneficial results."

It is evident from the above that Rynd practiced hypodermic medication as early as 1844. Many able writers have claimed that Alexander Wood employed this method as early as 1843, and that he delayed the publication of his report until 1855. Knowing the character of the Scotchman, I was loath to believe this to be true. Investigation proved that I was right in my conjecture, and that Wood used hypodermic injections no earlier than 1853.

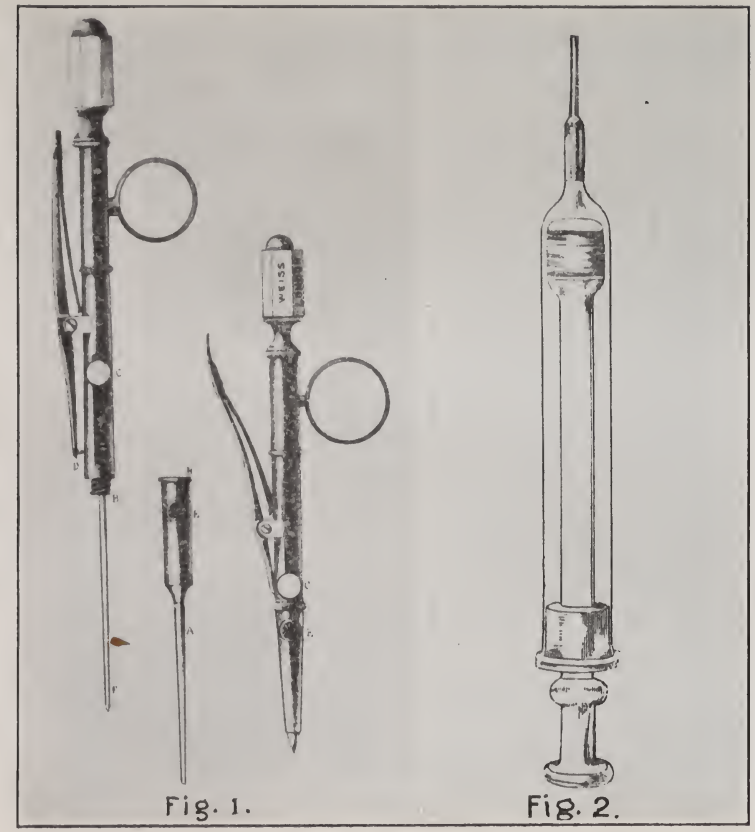


Fig. 1.

Fig. 2.

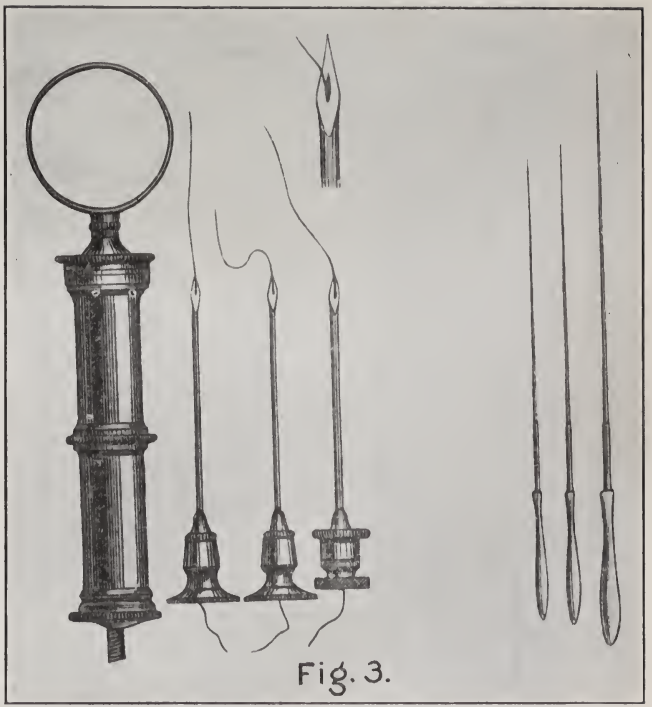


Fig. 3.

In the *British Medical Journal,* August 28, 1858, is an article by Wood, where he says in part " It was in the end of November, 1843[?], that I was sent for to see an old lady, upwards of 80 years of age, who had been kept from sleep for four or five days by a most violent attack of cervico-brachial neuralgia," etc. This typographical error in the date helped to rob Rynd of his laurels. Other published accounts by Wood of this same case distinctly prove that the time was 1853 instead of 1843; moreover, this date corresponds precisely with the fact that at the age of 35, which was about 1852, he first began his researches. Ruppaner and others, however, ignore this discrepancy entirely and ascribe all the glory to the Scotchman and leave the Irishman consecrated to oblivion.

We have here another instance which proves the time-worn maxim that every one must in a measure blow his own horn if he is to receive just recognition. Although Rynd is entitled to priority in the introduction of subcutaneous therapy he would have served humanity more had he proclaimed the glad tidings to all the world, instead of hiding his needle in a dispensary. Thus it remained for Wood to bring the hypodermic method of treatment into universal employment and consequently he was proclaimed by his scientific confreres " a prominent benefactor of humanity."

Alexander Wood was born December 10, 1817. He came from a family of physicians and fully justified the expectations of his worthy sire by capturing almost every prize of the profession during his early career. While serving in the capacity of Secretary to the Royal College of Physicians of Edinburgh he evolved the idea of subcutaneous administration of drugs for the relief of pain. He was then 35 years of age. He had become intensely interested in the treatment of neuralgia and had adopted the method of Valleix, introduced in 1842, which consisted of the application of a succession of blisters over the points in the course of the nerves which are painful on pressure. Wood improved this method by subsequently applying an ointment containing morphia to dress the blistered surface, and to this he attributed much of the relief obtained. It occurred to him that a more direct application of the narcotic to the affected point would be attended with better results, and this caused him to make several attempts to introduce morphine directly by means of acupuncture needles or similar devices, but without success.

In his first report on the subject Wood says " Having occasion about the end of 1853 to endeavor to remove a naevus by injection with the acid solution of perchloride of iron, I procured one of the elegant little syringes constructed for this purpose by Mr. Ferguson, of Giltspur Street, London. While using this instrument for the naevus, it occurred to me that it might supply the

means of bringing some narcotic to bear more directly than I had hitherto been able to accomplish on the affected nerve in neuralgia. I resolved to make the attempt, and did not long lack opportunity."

From Wood's account one is certainly justified in deducting that he was not cognizant of Rynd's discovery, as he relates his experiences in such a naive and ingenuous manner as to preclude any suspicion of his having had previous knowledge of the Irish surgeon's work.

The first case in which he employed hypodermic medication is reported by him in the following graphic manner. "Miss ——, an old lady, who had long labored under gastric and nervous symptoms, had suffered severely for four days from cervico-brachial neuralgia. This lady had the idiosyncrasy of not being able to take opium. Of this she had warned me many years before, when she first came under my care, and I consequently never prescribed it for her; however, once, when she was seen with me by the late Dr. J. H. Davidson, he, disbelieving her former experience, prescribed opium, with the effect of bringing on a severe fainting fit.

"The narration of her case may date from November 26th [1853]. She had not been able to sleep for the three previous nights from the violence of the neuralgic pain, and was quite exhausted with severe suffering. The usual internal remedies, with the exception of opium, had been tried, but without the least alleviation of her agony. Under these circumstances, I resolved to put in practice the plan which I had so long revolved in my mind.

"Accordingly, on November 28th, I visited her at 10 P. M. to give the opiate the benefit of the night. Having ascertained that the most tender spot was the postclavicular point of Valleix, I inserted the syringe within the angle formed by the clavicle and acromion, and injected twenty drops of a solution of muriate of morphia, of a strength about double that of the officinal preparation.

"In about ten minutes after the withdrawal of the syringe the patient began to complain of giddiness and confusion of ideas; in half an hour the pain had subsided, and I left her in the anticipation of a refreshing sleep.

"I visited her again about 11 P. M. on the 29th; was a little annoyed to find that she had never awakened; the breathing also was somewhat deep, and she was roused with difficulty. Under the use of somewhat energetic stimula, however, these symptoms disappeared, and from that time to this the neuralgia has not returned."

In the prefatory note of his classic contribution on neuralgia, which appeared in 1855, he refers to the instrument employed as

having abandoned it for a much simpler syringe constructed for him by Young, the surgical instrument maker of London. He describes the method thus: "The instrument consists of a common trochar-exploring needle. This is first inserted, and the trochar being withdrawn, the canula is left in the wound. To it a small glass syringe is adapted by which the narcotic is injected. This instrument is not so liable to get out of repair as Mr. Ferguson's and can be obtained for less than one-half the price."

A very interesting though inaccurate account of the part enacted by Wood is given by the Reverend Thomas Brown in his memoir of Dr. Alexander Wood. He says "A certain line of reasoning had led Dr. Wood to the belief that benefit was to be expected from the injection of morphia under the skin. Taking as his model the sting of the bee, he had constructed a small [glass] syringe, to which was attached a fine perforated needle point. This needle he passed under the skin, and through it he injected a small dose of morphia, which he could not give by mouth. In this manner all derangement of stomach and liver was avoided, and immediate absorption of the morphia into the blood stream took place."

Since this eminent divine was Wood's brother-in-law, we are inclined to overlook his zeal in attempting to award to his illustrious relative the distinction of the discovery of the hollow needle also. Wood himself distinctly states that the idea of hypodermic medication came to him while using such an instrument in the treatment of naevus. The idea of a hollow needle is no doubt original with Pravaz and antedates Wood's work, but not that done by Rynd.

Charles Pravaz, of Lyons, was deeply interested in the treatment of aneurisms and while experimenting with methods to improve the introduction of caustics in cases of aneurisms and naevi he hit upon the plan of injecting the solutions into the sac with the aid of an instrument he devised. In March, 1852, Pravaz had Charrière, of Paris, make an instrument which became known as the Pravaz syringe, and on January 10, 1853, he reported his results of injection of perchloride of iron into aneurysms with his needles, trocar and syringe. It was this model which was copied and modified by manufacturers and gradually merged into our present hypodermic syringes.

The photograph which I have here was prepared from an old woodcut and portrays a syringe similar to, if not identical with, the simple instrument recommended by Wood (Fig. 2).

Shortly after Wood's discovery Charles Hunter took the initiative in demonstrating that injection directly into the painful points was unnecessary and that equally beneficent results were obtained when the drug was injected into a distant part of the body. His earnest labors led to a wide-spread knowledge of sub-

cutaneous medication and induced many English, Belgian, French, German and Italian physicians to adopt it.

Hunter also proposed the term "hypodermic" in 1859, thus harmonizing the terminology with that already in vogue. He also designed a special syringe with glass barrel, silver fittings and silver needles, or "pipes" as he calls them, with a hardened gold point.

The earlier hypodermic syringes were rather primitive instruments and the method of administering drugs under the skin a laborious task; in fact, it partook of the nature of a minor operation. First an incision into the skin was made; then a canula was introduced through this incision and the syringe filled with fluid attached thereto, whereupon the contents were slowly injected. Some of the early syringes were made of glass, and instead of a separate needle the nozzle of the syringe was simply drawn to a fine point. This type also required the use of the lancet before injections could be made. The original syringe of Pravaz was not supplied with a needle point either, a trocar being used instead, but the later modification by Béhier, much used in France, had such an attachment. This syringe was composed of glass and had a piston that worked with a screw, each complete turn of the screw injecting two minims of fluid, while the needle was connected with the barrel by means of a screw thread. The syringe made by Charrière for Pravaz was made of platinum, but as this prevented Pravaz from seeing the fluid while it was being injected, he later resorted to the glass syringe also.

The first hypodermic syringe employed in this country was a modification of the Pravaz instrument manufactured by Tiemann. It was composed of a barrel made of either glass or hard rubber and contained a piston with or without a screw attachment on the rod, while the needle screwed on to the barrel tip. The barrel had a capacity of half a dram of fluid. Hollow needles of varying length accompanied this outfit. The points of these needles were sharp and perforated by an oblique opening on one side through which the drug was expelled. Some of these syringes had a smooth socket-joint nozzle in place of the screw thread to which the needle was attached. The Pravaz syringe of 1858, which Dr. Lamb will exhibit tonight, illustrates this point.

In the early sixties Roberts Bartholow, of Ohio, manifested a deep interest in the hypodermic administration of drugs and experimented considerably with the different syringes obtainable at that time, all of which he found so unsatisfactory that he designed a new instrument which he describes as follows: "It is made of pure silver and has a capacity for thirty minims. It contains two silver needles of different sizes, and also a trocar, which screw on to the barrel. The needles are somewhat lancet-shaped, and readily perforate the skin. The piston does not work with a

screw; it is packed with leather and accurately fits the barrel. The lower extremity of the piston is filled in with a silver plate, which closely adapts itself to the bottom of the cylinder, in order to insure the expulsion of all the fluid. The piston-rod may be graduated, but I prefer to use a minim glass. The piston of this instrument works so accurately that every drop in the minim glass may be drawn up into the barrel by aspiration, and all may be injected except the small portion which remains in the needle." Bartholow was the first to suggest and use a " rimmer" for cleaning the needles, which has since been displaced by the small brass wires which are in use today to preserve the lumen of the needles (Fig. 3).

It would be an enormous task, and of little practical value, to enter in detail into the progressive development of the various types of instruments for the introduction of fluid solutions under the skin, and I rather incline to the belief that a rendition of these mechanical facts would prove far more soporific than some hypodermic injections I have known. Permit me, however, to refer those who are interested to the most valuable and instructive exhibit of hypodermic syringes in this country. I have in mind the collection of instruments, ranging from 1858 to date, contained in the West Gallery of the Army Medical Museum of the War Department. The pathologist, Dr. D. S. Lamb, has succeeded in arranging here a display of hypodermic outfits which is well worth while going to see.

The hypodermic method of administering drugs for the relief of pain soon revealed the need of a convenient form in which to carry these drugs. As the salts of morphia were almost exclusively employed a concentrated form was sought, and the solution of Magendie, which contained two grains of the morphine salt to each dram of water, was usually dispensed. This did not prove practical for two reasons: First, it was unhandy on account of its bulk when a sufficient quantity of the drug was carried; secondly, decomposition would occur, and when it was used in this condition serious abscesses and other lesions followed injection.

This latter inadequacy led to an attempt of conservation with antiseptics, such as glycerin, carbolic acid and chloral hydrate. The addition of these conservatives caused the injections to be so painful, however, that physicians soon discarded their use. The practitioners then turned to powders of morphine sulphate of a quarter of a grain each, and on further study of subcutaneous medication a small amount of atropine was added to each powder to enhance the effect of the morphine. These powders were dissolved in water immediately before hypodermic injection.

These powders also proved unsatisfactory as such small amounts could with difficulty be weighed correctly nor were the

containers of the powders such as to insure accuracy and perfect preservation. It occurred to Dr. H. Augustus Wilson that pills might serve for this purpose, and he suggested to L. Wolff, of Philadelphia, the manufacture of granules containing equal parts of morphia, white sugar and a little water. It was found, however, that these pills failed to dissolve readily and that they gave rise to considerable pain when injected hypodermically. Finally, after numerous experiments, substitution of hydrochlorate of morphine for the sulphate and the use of sodium chloride in place of the sugar as a "disintegrator" yielded a tablet that had all the advantages of the former pellets and none of the disadvantages.

Pharmaceutical progress then was not so rapid as now, for twenty-five years elapsed after the introduction of the hypodermic method of medication before a suitable preparation of drugs in convenient and stable form was evolved. During the past three decades chemical and pharmacological science has advanced so persistently, however, that one now may obtain for hypodermic use almost any drug in tablet form, and recently the addition of solutions in sealed ampoules has perfected the administration of remedies in solution.

The syringe which Rynd employed in 1843—which he did not describe, however, until 1861—and the simple instrument used by Wood in 1855, made no pretense of being pocket outfits, and the stages in the development of the hypodermic pocket case are readily quarterned into the following eras: 1858–1870; 1871–1880; 1881–1895; 1896–1911.

1858–1870.—The hypodermic outfit most commonly employed during this period in Great Britain, the Continent and America was composed of a glass cylinder with hard-rubber mountings or rubber cylinder and mountings, large enough to hold a dram of fluid. It had a steel piston without scale and with leather packing. One small and one large steel canula with either a socket joint or a screw-thread attachment was the earliest type of hollow needle. The ends of the canulae were rounded and dull and necessitated a preliminary skin incision for their introduction, but these were soon displaced by the oblique sharp-pointed needle. The needles were constructed from various metals; even the most expensive, such as gold, silver and platinum, were employed in their manufacture. The entire outfit resided in a neat leather case with plush lining; this was later superseded by a metal case. It will probably not surprise you to hear that some of these outfits ranged as high as $30 a piece.

1871–1880.—During this period syringes with a glass cylinder of 1. c.c. capacity with rubber or silver mountings, a graduated steel piston with leather, asbestos or hard-rubber packing, and also solid silver barrel syringes with two hollow steel needles and several "rimmers" were widely introduced. Syringe manufac-

turers also began to add to the hypodermic outfit from one to four flasks of glass with metal tops to be used for carrying drugs in solution ready for injection. As a result the pocket cases grew to be rather voluminous, certainly no self-respecting vest pocket would care to harbor them. These cases were composed of metal, hard rubber, leather or wood, some were leather-lined, other boasted chamois skin or plush linings, while still another variety lacked all decorations. These cases were all of the flat chest variety with the catch on the side.

1881–1895.—Coincident with the discovery of a method of manufacture of pellets, granules and tablets for hypodermic use, small glass vials as containers were introduced. The first hypodermic syringe cases having this attachment appear to have come on the market about 1889.

1896–1911.—The metal piston syringe was invented and widely advertised during this period. It found many ardent admirers and was considered quite an improvement over other pistons hitherto obtainable. The all-glass barrel and piston syringe, with terminal glass screw needle attachment, and a capacity of 1 to 5 c.c. first appeared on the market about 1895. The majority of these are contained in handsomely nickeled flat metal cases with rounded ends.

During the past ten years or more the most popular outfit of the general practitioner has been the light aluminum case with automatic snap top cover. This has from four to six compartments with vials filled with tablets, contains two hollow needles with screw tops and a supply of fine brass wire for maintaining the lumen of the needles in serviceable condition. The syringe is either all metal or has a glass cylinder with nickeled-steel mountings and graduated leather piston with screw attachment for regulating the contents of the syringe. The all-glass syringe and plunger has attained the preference in hospital and dispensary work, and is usually selected by nurses, and is selected by many physicians in their office work.

Ample opportunity for testing the different hypodermic syringes as well as a careful consideration of the advantages and disadvantages of the different instruments has led me to conclude that we still have no syringe which is endowed with perfection and that circumstances often influence the selection of a certain kind of syringe. My preference for office work is the all-glass syringe with asbestos or glass plunger. Such a syringe is easily sterilized, does not get out of order, and is always ready. Occasionally I resort to the all-metal syringe with solid metal piston and regular steel needle, but I much prefer the glass syringe, largely because it permits inspection of the contents of the syringe.

For outside work my constant companion is the regulation glass-barrel syringe with nickeled-steel trimmings and steel piston with

reinforced leather packing and a 25-minim scale with graduating screw piston ring. The case is of aluminum with six small compartments large enough to hold the vials containing compressed tablets, one large compartment for the syringe, a very small one for fine wires, one for the needle-head attachment which screws into the top of the compartment, while still another contains a glass tube sufficiently large to carry six aseptic hypodermic needle points, known as "Schimmel's" patent needles, made of best seamless steel tubing. In preparing for an injection a needle point is removed from the vial and placed in the needle attachment or head, then the syringe is screwed to this head, and when it becomes tight it automatically unscrews from the case. The needle points may be sterilized and repeatedly used if it is desired to do so.

As already stated, one of the greatest advantages of the glass over the solid metal barrel is that it permits inspection of the contents at all times. In a syringe in daily use there is little likelihood of the plunger packing shrinking, and when a drop or two of water is retained in the barrel before replacing the instrument in the case sufficient moisture is supplied to keep the plunger intact for a long period of time. Of course, leather plungers are not intended to be boiled, and many a syringe has been ruined by a novice in just this way. The instrument is easily sterilized with a lysol solution or a similar antiseptic. The former insures surgical cleanliness and lubricates the instrument at the same time.

During the early days of hypodermic medication complications galore arose from injections. A review of the literature from 1870 to 1900 shows that the number of accidents was exceedingly large during the decade of 1870 to 1880, the pre-tablet era. Fatal cases of tetanus often resulted from hypodermic injections. Abscesses, both local and metastatic, inflammations, cysts, cicatrices, motor paralyses, pulmonary embolism, ulnar neuritis, etc., are reported *ad libitum*.

The introduction of compressed tablets and better aseptic or antiseptic technique marks the steady decline of these morbid conditions, and now one rarely hears of trouble induced by hypodermic medication. There isn't a physician in active practice today who cannot testify to cases of severe and prolonged illness where it was necessary to give from fifty to one hundred or more hypodermic injections during the course of disease without ever experiencing the slightest complication. Slight tumefaction or redness of the skin may occur occasionally, depending to some extent on the nature of the drug injected, but all these symptoms are of transitory nature. With reliable tablets at hand and a reasonable degree of cleanliness one should experience no complications. In fact, I know of a large number of emergency cases,

for instance, where haste was imperative, and practically no precautions were employed, yet not one of these suffered any subsequent inconvenience from the manner in which the hypodermic was administered. It is advisable, however, whenever at all possible, to employ the same technique in a hypodermic injection as is the rule in any minor surgery operation. The important point to remember is that the hypodermic syringe is merely a mechanical product of ingenuity, not an automaton, and depends entirely on the physician or nurse for its aseptic or antiseptic toilet.

Bartholow, Roberts. 1869.—Manual of hypodermic medication. 150 pp.
Brown, Thomas. 1886.—Alexander Wood. A sketch of his life and work. 203 pp. Portrait. Edinburgh.
Pravaz, Charles. 1853.—Sur un nouveau moyen d'opérer la coagulation du sang dans les artères applicable à la guérison des anévrismes. Compt. rend. Acad. d. Sci., Paris, vol. 36, pp. 88–90.
Pravaz, Jean Charles Théodore. 1857.—Sur le traitement des anevrysmes par les injections de perchlorur de fer (methode Pravaz). Thèse. 51 pp. Paris.
Ruppaner, A. 1866.—Hypodermic medication, etc. Med. Communicat. Mass. Med. Soc., Bost. (1860–1866), vol. 10, pp. 169–214.
Rynd, F. 1845.—Treatment of neuralgia. *Dublin Med. Press,* March 12.
1861.—Description of an instrument for the subcutaneous introduction of fluids in affections of the nerves. *Dublin Quarterly J. M. Sc.,* vol. 32, Aug., p. 13.
Wolff, L. 1880.—Soluble compressed pellets for hypodermic medication. *Am. J. Pharmacy,* Phila., vol. 10, 4. s., pp. 593–595.
Wood, Alexander. 1855.—New method of treating neuralgia by the direct application of opiates to the painful points. *Edinb. M. & S. Quart. J.,* vol. 82, Apr., p. 265. *Also abstract in Month. J. M.,* Lond., vol. 20, p. 183.
1858.—Treatment of neuralgic pains by narcotic injections. *Brit. M. J.,* Lond., Aug. 28, p. 721.
1884.—Obituary. Alexander Wood, M. D., F. R. C. P. E., Dec. 10, 1817—Feb. 26, 1884. *Edinb. Clin. & Path. J.,* vol. 1, p. 559, and *Edinb., M. J.,* vol. 29, 1884, pp. 973–976.

Dr. Nichols said that the subject so well presented by Dr. Pfender was difficult to discuss, though its historical interest was very great. Dr. Nichols had used all sorts of syringes for hypodermic injections; at present his preference is for the all-glass Luer syringe. The objection to syringes with leather washers is that they will not long resist deterioration from employing oily injections and after repeated boiling. Another advantage of the Luer syringe is that it can be used to withdraw blood from a vein for bacteriological or other examination. For tuberculin injections he uses a Straus syringe which he had obtained in Paris; the piston of this syringe is asbestos packed and can be loosened or tightened while the injection is being given; the syringe can be sterilized by drawing hot oil into it, and it is graduated to small fractions of a c.c.

Dr. Isabel Haslup Lamb asked if the Straus syringe was of glass or metal; the description would indicate that it is similar

to a syringe manufactured and distributed by the Mulford firm. She commented on the fact that the piston of the Burroughs and Wellcome instrument is solid, while that of other all-glass syringes is hollow; it seemed likely that the hollow construction would make such syringes less durable.

THE HEALING FORCES OF NATURE IN DISEASE.*

By Gustavus Werber, A. M., M. D.,

Washington, D. C.

Two years ago I read before you a paper entitled Junod's Blood Derivations, in which I said, "It appears to me that the blood derivations practiced by Junod mark the introduction of an entirely new principle into therapeutics, viz: that the rapid and pronounced *depression* of the index of vital resistance, due to interference with the flow of its sustaining fluid, quickens the opposing force to its maximum of activity and results in raising the level of the index to a correspondingly high point of *elevation*. In a word, it would seem that Junod's derivations *compel* the law of compensation to act on the defensive, to erect new barriers against the encroachment of morbid conditions." As none of the profession seems to believe in the probability of this seemingly strange doctrine, I feel justified in recording a few thoughts which make it appear reasonable to me that such a principle *is* embraced in the law of compensation.

First, let me recall to your minds that Junod's operation consists in the application of metal recipients, derivators, or "boots" to the extremities of the body—more commonly to the lower extremities—and by establishing a partial vacuum within these "boots" he bled a patient into his own vessels with the result of inducing fainting, which he construed as a physical sign that his remedy had been applied "to effect."

I take it for granted that no one will dispute that Junod's cures were accomplished solely through influencing the forces of nature, and I also take it for granted that we will all agree that the action of the forces of nature in curing disease is practically a *compensation*, resulting from the necessity of removing some obstacle placed in the path of the normal operation of the human machine.

And I would say here that the present paper is offered as a speculation as to a means of increasing our control of these forces.

No one doubts today that the body possesses some power of resisting and recovering from the disturbing forces of disease. Anciently this power was called the *vis medicatrix naturae*, or the

* Read before the Medical Society, November 22, 1911. Copyright 1912, by G. Werber.

healing force of nature. In more recent times this force has been given a variety of names, as the subconscious mind,* the subliminal self, the true Ego, and so forth. These various names reflect the different opinions held as to the nature of this power, from the Ecclesiastics, who see in it the application of supernatural power, to the Evolutionists, who see in it merely the interaction of cellular elements in accordance with fixed laws, and who hold that the reign of law is universal, and never modified by special attributes. Physicians, generally, do not regard it as an independent force, but accept the opinion of Herbert Spencer, who tells us it is the working out in the body of a law which obtains throughout all nature—the law of equilibration or balance of forces; examples of which may be seen everywhere in nature from the centripetal opposing the centrifugal force, to the condition of destroying vegetable life by insects when their natural enemies, the birds, have been killed. At the present stage of our knowledge our greatest efforts should be made to learn the laws governing this force in order that we may apply them practically. For, as in the case of electricity and magnetism, by persistent study and repeated trials, we may enjoy a few of the blessings attending the application of vitality's governing laws long before any one knows what either vitality or electricity really is. We all know positively that we *need* to have this force serve us *better,* and that it is a part of our mission on this earth to *make it do so.* And from this common viewpoint all can work together harmoniously for the unraveling of the law, if one is broad enough to admit and use the fragment of the law discovered by his neighbor.

I will not consider compensation in its usual application to designate a readjustment of the histological elements of various organs to bridge over the danger caused by morbid processes, but only in its broadest sense to include all those processes by means of which nature protects herself against the results of disease or accident. To amplify this thought I will quote at length from the address of Prof. Alfred H. Carter before the Staffordshire branch of the British Medical Association, October 25, 1900, and I would suggest substituting the word " compensation" for his term equilibration:

" The living body is a moving equilibrium of a variety of antagonistic forces, which, on the one side, is constantly dissipating its energy in the functional activities of its individual parts, and on the other side, is being as constantly reinforced by taking in fresh motive power. It is an equilibrium which, moving onwards in a rhythmical progress, preserves a constant mean, and

* The term subconscious mind is very commonly used to designate the automatic functions of the sympathetic nervous system, which are not controlled by the psyche and only influenced by it through the emotions.

tends to reëstablish that mean whenever accidental causes have disturbed it. The mean balance of forces in movement. which characterizes what we call healthy life, unstable as it is, yet as the result of adaptations extending indefinitely back into the past, has become sufficiently stable to offer very considerable resistance to disturbance; and if disturbed, short of being altogether upset, it tends to become reëstablished sooner or later. The limits of recovery from such disturbance, or what may conveniently be termed the index of resistance, varies somewhat for each individual. When the index is high, we speak of such a man as strong or robust; when, on the other hand, it is low, as weak or delicate. The special susceptibilities to disease connected with age, sex, pregnancy, lactation, climacteric period, and the like, correspond to physiological fluctuations of the resistance index; and these again, merge by imperceptible degrees into what are called 'acquired susceptibilities,' which represents pathological forms of diminished resistance, due to such factors as inanition, fatigue, exposure to cold and previous disease. If I am not much mistaken, something of what passes in our medical vernacular, as acquired susceptibilities is not to be distinguished from disease. If, for instance, a healthy man attacked by influenza, tells us he has 'never been the same since,' it is probable that in a strict sense, he is still the subject of some morbid process left over from the original disease. At the same time, there are many cases in which, after serious disturbance, never completely recovered from, a fresh balance is established by virtue of the law of equilibration, though upon a permanently lower plane than before, and which henceforth becomes for that person a normal state. Though in some aspects the *vis medicatrix naturae* works on passive lines, in other aspects, its operation is more active, as by the destruction of noxious agents entering the body, by natural processes of expulsion and elimination, by compensatory overgrowths, and by a slow process of adaptation to new conditions.

"But for the natural tendencies of the body towards health when disturbed by disease, the art of healing could not exist; for no treatment can be of the least service which is not concerned either with the removal or reduction of the causes of disease, or with the assistance of the body in making use of its powers of recovery. This is a rule which admits of no exception; and not even the haphazard remedies of the purest empiricism can accomplish anything except in so far as they happen to conform to it. But for the law of equilibration, a morbid disturbance once set up would continue to the point of annihilation; and treatment addressed to the living body is absolutely meaningless except as an appeal to such powers of resistance as the patient possesses. When these powers are practically at zero, as in the closing scenes of any fatal illness, it is idle to expect anything from treat-

ment, as of course we all know. * * * There is nothing, however, in these facts which justifies an attitude of 'expectancy' or non-interference. The provisions for resistance and recovery, necessary as they are, and bounteously as they respond to intelligent control, yet cannot be trusted without it, and for various reasons. In common with all other natural forces, they are inexorable, and represent no deliberative purposive adaptation of means to ends. In any case, they are limited in their range of operation. Sometimes they are too feeble to be effective, and at other times they may become a source of danger from their very intensity. The time required for their manifestation and complete development is often far too protracted to be of service, while accompaniments, such as pain, for instance, are apt to seriously discount or to altogether annul their influence for good. Lastly, secondary disturbances may be set up, which, by their unfavorable reaction upon the primary trouble, may lead to the establishment of 'vicious circles,' from which safe emergence is difficult, or impossible. So far then, from the *vis medicatrix naturae* rendering a sufferer independent of our art, the need for guidance and control is very great, and often exceeds our power of adequately meeting it."

Man's body was developed under conditions of physical hardship, in which strength of limb and fleetness of foot formed important elements of his ability to sustain life, and his body in this way became adapted to putting forth very much more energy than the present conditions of living require of men. We are all by nature fearfully indolent and are prone not to exert ourselves more than the occasion requires. This, then, is the fundamental fact of all compensation, that the human body as a whole and its separate parts are, under normal conditions of health, capable of putting forth much more energy than they habitually do. When the exigencies of the occasion require it, the human motor shows clearly that it is designed to carry a considerable "overload," so to speak. Man's vitality ebbs and flows like the tides, highest in the forenoon and lowest in the early morning hours, when no obstacles are to be encountered during the hours of repose. Quite likely the law of nature demands obstacles opposing forces or circumstances to develop strength of body as well as of mind. Such at least is the common belief. Perhaps the bodies of men today are not so rugged as those of primitive men because they are not subjected to the same violent fluctuations of the index of vital resistance formerly required by the putting forth of vast amounts of energy in a short time. However this may be, observation and experience have taught us that the operation of nature's compensating force is the commonest thing in our whole lives—invaluable for its commonness. Without this compensating force, who will hazard a guess how long the delicate structures

of the human body would continue performing their functions satisfactorily under the abuse which they habitually receive?

In a majority of cases coming under the physician's care the problem presented is to bring these forces into more vigorous action, and very many means have been found effective in accomplishing this, as faith, fasting, even music has been shown to be effective under some circumstances, heat, cold, drugs, sudden loss of blood, hypnotism with suggestion, physical exercise, by *challenge,* or placing the *vis on the defensive,* and by anything which depresses the index of vital resistance and is followed by reaction, for reaction *is* the response of the *vis* to nature's call for increased support. Since the *vis* is the compensating force of the body, it will quite naturally be called into more vigorous action as abnormal conditions of the body arise or are induced which require more vigorous action of this resistance to preserve the equilibrium.

It has long been known that recovery from scarlet fever, measles, diphtheria, typhoid fever and smallpox usually protects against a second attack. And it is from the application of the principle involved that we have achieved some of our most successful results in practice. Jenner's vaccination disturbs the equilibrium of health by introducing certain poisonous matter into the circulation, thereby challenging these forces to restore the equilibrium, and immediately the physiological mechanism of the body is stimulated to the production of immunizing substances, and the body is protected against smallpox. We have from similarly challenging these forces by other vaccines successfully prevented or cured typhoid fever, rabies, tetanus, cerebrospinal meningitis, diphtheria, dysentery, abscesses and cellulitis. For the principle remains the same, whether we challenge the *vis* in man or in the horse, the curative or immunizing substances are obtained in either case by placing the *vis* on the defensive, and nature produces the remedy by the physiological activity of animal cells resulting from the challenge to this same resistance.

Is it not probable that *all force* in the universe utilized in machines, whether organic or mechanical, will in its ultimate analysis be found to be the same?

I quote from Franz Reuleaux's Kinematics of Machinery: "Whilst in the first system, which we may call *kosmical,* the external measurable mechanical forces are opposed by similar external forces, in the second, the *machine* system, there are opposed to all external forces others concealed in the interior of the bodies forming the system, and appearing there,—and acting in exactly the required manner,—*in consequence of the action of the external forces.* One might apply to these forces,—with a very small alteration which I hope the reader will permit,—Schiller's riddle about the spark:

Sleeping, yet ready for the expected foe,
I lie concealed within my iron walls;
He comes, he feels my iron weapon's blow,
We fight; I sleep again,—for soon he falls.

The force is challenged, and immediately it appears; the external challenging force ceases, and immediately its opponent, which has so energetically defended the form of its dwelling, also disappears. Nothing is to be seen of the inner force so long as it is not awakened by an outer one. It is, as it were, concealed in the interior of the body. We shall not be carrying the analogy with Thermal Physics too far if we call these molecular forces, which in their hiding places guard the stability of the material world, *latent forces,* as opposed to the directly measurable *sensible* forces which externally influence bodies through gravitation and other causes. The difference between the two systems is therefore that sensible forces are in the one case opposed by other and independent *sensible* forces, and in the other case by dependent *latent* forces."

Faith in the doctor and the efficacy of his treatment is always an important element in securing the best aid from increased activity of the *vis.* Fasting followed by prayer has always been recommended with confidence by the Ecclesiastics for securing a restoration of the equilibrium. And, mark you, the fasting always *precedes* the prayers—why? To induce an abnormal condition which places the *vis* on the defensive, thereby stimulating it to increased activity or making more energy available immediately. Faith with emotion, or the faith of the heart, is today being proclaimed by very many as an infallible cure for disease, if you will accept it that science has come to pay homage to the Christian faith. Senator Jno. D. Works reports himself cured of a complication of diseases by faith of the heart after faith of the mind had failed to relieve him. But Minister Wu Ting-fang also had his health restored by short periods of fasting and by modifying his diet, and he finds so much joy in life that he aspires to reach the century mark. And Mr. Edison, who is said to believe only in the religion of hard and persistent work, preserves his health in perfect condition and surprises the world with his powers of endurance by cutting down his food supply to the point of keeping the powers of nature constantly on the defensive, and he reports so much happiness in life that he aspires to live to be one hundred and twenty years old. And I am myself a living monument to the efficacy of *physical forces* in therapeutics, and I am a believer in *all* religions—holding that that is the best religion for every man which makes him the happiest and best man and most useful citizen, and that the highest law commands us to show the same toleration and respect for the religious opinions of others that we claim for our own. So I conclude that satis-

factory results will follow from stimulating these forces by any means that are effective, and that the laws of nature operate alike for all who know and keep God's law, irrespective of their religious beliefs.

The power of fasting to place the *vis* on the defensive and stimulate it to increased activity has been known from ancient times, and now and then we read of one given up to die when coma and prolonged enforced abstinence from food supervene and excite the reaction and health is thereby restored. Of course, we must not lose sight of the fact that nature has made provision for the vicarious action of organs, and that when the fasting organism can utilize the energy normally given to the processes of digestion to remove obstacles in the path of restoring the equilibrium no other explanation is required. But in prolonged fasting when inanition supervenes, if our common belief that digested and assimilated food supplies energy to the organism is correct, then some other principle must explain the cures from prolonged fasting.

Heat, like any other remedy which serves notice of impending danger, will quickly rouse up the *vis*. In postoperative shock in which we have dilatation and engorgement of the abdominal blood vessels, exposure of the trunk and extremities in a hot-air apparatus challenges these forces and, being placed on the defensive, will, if possible to do so, bring reaction and start the patient on the road to recovery. Of course, the application of heat must not be continued after reaction is established, or you will make conditions worse. Cold applied to the body, as by a shower bath, causes the blood to be quickly removed from the surface of the body accompanied by depression of the index of vital resistance. Discontinuing the depressant will, in suitable cases, be followed by the *vis* pushing up the index and the blood to the surface again simultaneously, and the body is thereby strengthened. Air cooled by ice has been given in cases of pneumonia with good results, and I believe the *vis* will accept a more imperative challenge and think we should try to reduce the temperature of the air for respiration gradually to zero or lower, and that we would get more positive results. Then, too, the alternate applications of heat and cold is one of the most powerful means we have for quickly arousing the forces of nature to increased activity.

Drugs, like strychnia, must be followed by *reaction,* or rousing up of the *vis,* or we say they do not suit the case. Recently two physicians of some prominence in the profession have been quoted in the public prints as saying that *all* drugs, not normal chemical constituents of the body, depend for their curative action on this power of exciting the forces of nature to a reaction. Whether there is any truth in this or not, the fact of our endeavors to enlarge the number of our effective vaccines, serums and anti-

toxins, and the fact that some physicians today administer the venom of serpents, the stings of bees and the secretions of the glands of poisonous toads seems to me to point plainly to enforced compensation as a promising means for enlarging the field of our effective therapy.

Physical exercise in suitable cases, as we all know, is one of the most effective ways of arousing the *vis* to increased activity. This can be demonstrated by lifting graduated weights on the reactionary lifting machine, which invigorates all the bodily functions and is the most efficient means we have for imparting strength to a weak heart. Massaging the heart by the surgeon to start it pulsating again belongs to the same class of enforced compensations. And in resisted exercises we have such a clear and forcible demonstration of the principle of enforced compensation that it would appear almost imperative that we give serious attention to the application of this principle in therapeutics.

Suggestion has always been recognized as a means for influencing the *vis,* and, under hypnosis, it has been shown to be quite as effective as it is puzzling. Many books have in recent years been written telling of the marvelous powers of suggestion under hypnosis. Dr. William A. White says that it occupies the same relative position in psychotherapeutics that algebra does to arithmetic in mathematics. Professor Frederic H. Gerrish says of it, " Indeed, most physicians and some neurologists have little appreciation of this branch of the healing art, and treat it cavalierly, if they deign to give it any consideration. It ought to interest and be understood by every medical practitioner; it is the least comprehended of the psychotherapeutic methods, that to which the most strenuous and even savage opposition is habitually made, and that, therefore, which needs the most explanation and defense. It is almost uniformly treated unjustly because ignorantly."

Dr. Boris Sidis has shown that under hypnosis there is always an element of resistance or antagonism to the suggestions on the part of the patient, and that the good results obtained are in proportion to the withdrawal of this opposition on the part of the patient. This same obstacle *may* confront the physician in *all* forms of treatment, and suggests the thought that Junod's operation places the patient in a position *beyond the power of resistance,* which may account for his phenomenal success in influencing the *vis.* Honesty will compel the admission that his operation effected cures of diseases so widely different and in a manner so prompt and effective that there is little surprise that his work has not been given credence. For he himself tells us that his operation is either curative or beneficial in every disease in which he applied it except cancer and tuberculosis. And we have abundant testimony that Junod was not only honest, but a

modest man as well, and not likely, therefore, to claim too much for his operation. If his operation *is* almost universally curative, as he says, he certainly then must influence the maximum of curative agencies by it, for, as we have seen in our orthodox practice, immunity against typhoid fever does not protect against cholera; but Junod's operation cured both; and I know no other curative agency he could have reached by it except these forces; and I think the facts justify the conclusion that his operation *is enforced compensation.* And it seems to me that our refusal to consider the facts he presents by saying we do not believe them in no way alters the truth contained in them, but only retards its practical application.

Scientific skepticism is, and has been for years, the teaching in medical science. No additional argument is needed to convince me that we need to look for some additional universal principle to apply in our practice. And I believe that in time we will find it in the teaching of our first master, Hippocrates: "Quo natura vergit eo ducendum"—wherever nature leads we must follow—which in time we will translate more liberally—nature's forces cure disease, learn to direct them.

But I must not be construed to advocate the employment of *a cure-all,* or to minimize the importance of differential diagnosis or the closest attention to all the studies now pursued by scientific medicine. For without reflection, all this may possibly be construed by some as tending to therapeutic nihilism. Perish the thought! Hushed into eternal silence be the voice that would decry, and palsied with impotence be the hand that would rob scientific medicine of one grain of its golden treasure for which it has delved so laboriously and so patiently throughout all the past centuries. Our very civilization would be impossible but for the protecting influences which scientific medicine throws around it. But the God of nature has imprinted the inefficable decree upon all His works that life is progress and repose is death. My exhortation, then, is to urge the profession to "compensate," to enlarge our field of vision, and to strain our energies *to the uttermost* to speed the perfection of our science to the accomplishment of rapidly increasing more perfect results in the application of our art. Perhaps you will say that we do this now. I am not sure but that we might do *better!* There is today a widespread opposition to scientific medicine which all crystallizes around the one central thought that we neglect to employ means which the opposition declare to be effective in influencing the forces of nature in curing disease. Do we act wisely not to give closer attention to the causes of this opposition? The medical profession is peculiarly upon honor to give to the world the most effective cure for disease that the combined wisdom of the world can formulate and make available. But all the past history of medicine reminds me

that medical men have no time to give consideration to theoretical papers. Let me then make a practical application of it all to call attention to the urgent need of the profession for a department or laboratory devoted to the scientific investigation of matters of general interest. A Council of Development and Progress, if you please, to which shall be intrusted the investigation of everything *new or old* proposed for the advancement of medical science which has not already been fully tested by intelligent trial.

By maintaining such a laboratory we would give the best guarantee possible that at the same time we say " Let other systems of medicine progress," we are saying with even more emphasis, *Let us progress.* Such a department operated by competent, unbiased men of the highest scientific attainments would do more to clarify the atmosphere in the medical world, and push us to pinnacles of higher efficiency and usefulness than anything else that could be inaugurated. And it would prove effective at once in silencing the quacks in the profession and out of it, and in sweeping away the therapeutic nihilism growing up in the profession and out of it.

There is yet another practical point I would urge upon you: The American Medical Association is in the anomalous position of having at its annual meeting a large exhibit of apparatus devoted to the application of *physical forces* in therapeutics, and of having no adequate means of teaching the scientific use of such apparatus in Physiotherapy, leaving the profession at the tender mercies of the instrument makers to teach the use of such apparatus. And the manufacturers are too often more interested in the *sale* of apparatus than in teaching its scientific use. This condition of affairs results in injury to the healing art and to the profession individually. For nothing can operate to injure the profession at large without injuring each member of the profession to some extent. I would, therefore, recommend that a new section in Physiotherapy be created by the American Medical Association for the purpose of developing this important branch of the healing art, and in bringing its work properly before the profession.

Dr. Wm. O. Owen said that to his mind there is a very important thought which runs from one end to the other of Dr. Werber's paper, and that thought is " suggestion," and its power to stimulate or depress the resistance of the individual to disease or other disagreeable episodes in our lives. Many of us have seen men lie down *and simply quit,* with no reason whatever, so far as we are able to discover, why they should not have recovered. And yet in spite of everything that we can say or do they apparently deliberately died.

Fasting, prayer, drugs, confidence in the doctor, sudden loss of

blood, cold, heat, and a host of minor things in this field, what do they as a rule all mean when we come down to the facts? Nothing more than that this or that method must be resorted to to hypnotize the individual, to reach the "subconscious mind" of the individual and convince him that he will follow certain lines laid down for him by the doctor who suggests. How much of drug action proper do we medical men use? Even large doses of ether are subject to suggestion, every one of the major operations of surgery has been performed under suggestion and is recorded in the Calcutta reports of the early 40's. What man is there here tonight who has not used it to cure, or benefit his patient? We *one and all* use it either consciously or unconsciously. I have personal knowledge of several members of this Society who use a variety of means to enforce their suggestions.

I have recently read Junod's book on Haemospasia. The results which he records are remarkable, and he is sustained in his results by the profession of his day. I find on the committee which awarded him the prize in 1836 the names of Larrey, Roux and Magendie, so he was at least in good company. In 1870 he received the Grand Prize of the French Academy of Sciences for this same work. Yet today no one uses his work. It is, indeed, curious to see work achieve such results and receive such notice, and yet drop out as this has done. I will not discuss how or why he attained his results, but we should certainly have some strong central body whose duty it should be to investigate all such matter as this, and to demonstrate what truth it contains. Such a council would give increased confidence, and would encourage thinking men to come with their thoughts to this body, where they would be investigated by open minds. This would silence the quacks both in and out of the profession. Humbug never intentionally subjects itself to the scrutiny of honest, intelligent investigators, while honest men ever seek to know the truth, to know how far they are right, but, above all things, where they are wrong, if for no other purpose than that they may think more clearly and better the next time.

Vis medicatrix naturae, the restorative force of nature, consists of many things. One of these, the chemical, is beautifully expressed in Ehrlich's side-chain theory, which many men the world over are studying. Unfortunately, these men are compelled to earn their livelihood by the practice of the profession, and no man so hampered can give his best brain to the work. What if he make a fortune as the result of work done at public expense? Can he do this unless he also performs a great public service? Should he not be rewarded for great public service?

For these reasons the public should create these laboratories to be devoted to special work, pay special workers, and allow any good scientific man access to the work-benches and material of

these laboratories. Include in these studies such matter as Faith Cure and allied matter. God's law knows no breaking. The operation of God's law is never suspended for man's convenience nor at the behest of individual man or woman. It never has been, and never will be, interrupted in its operation. Cures take place among the quacks of all kinds, otherwise these could not exist. Under what law do these cures take place? *Under suggestion beyond all reasonable doubt made to the individual and accepted by him.*

Under what conditions can these suggestions be made and impinged, what are the conditions which will enable the individual to accept them? The field is limitless! All disease, without exception, is largely auto-suggestion, and subject to this influence. Christian Science, Chiropraxis, Osteopathy, Homeopathy, Allopathy or Regular, the churches, one and all of them use it either consciously or unconsciously. We sit here night after night and hear men tell how to impinge the suggestion and none recognize the fact. I have cured many men with it, and we all do. These and all other abstruse medical matters should be referred to men who make a business of these studies and who should be paid by the public for this purpose only. The laws controlling the action and reaction between the various parts of the body are not yet well understood by the laboratory expert, and the average medical man does not know quite as much as the expert. I know of anaphylaxis, cytolysis, and a host of other terms which are not clear to me. But it is very clear to me that there is a world of work that should be done and which could be done best by good laboratory men. And we can only get the best laboratory men when we give them a fair living while they do the work.

I do feel that the body is simply a living equilibrium of cells and fluids; that it undoubtedly has a power of resistance to attack, and that stimulation of this resistance produces such material as antitoxines, so called because they destroy the toxines. This is one of the forces which nature uses to bring about recovery which so often only means the destruction by the human body of some other living entity. There is, however, still another factor which to my mind is the most powerful factor, the one which gives more cures than all the other resources of the profession, the one least studied by the profession, the one least understood by the profession, the one used by the profession more than all others, and in a perfectly unconscious way—I refer to the gentle art of suggestion.

Dr. Roy had enjoyed the paper and the discussion. Both speakers had urged the creation of a central experimental body. Would the subjects of experimentation be the lower animals or human beings?

Dr. Carr said that we have no central body for experimental research and if we had it would be a much overworked organization. The whole medical profession is now just such a body, as a matter of fact, and it is doing just the work spoken of by Dr. Werber; it seemed absurd to advocate the creation of new and additional machinery for doing just what is now being done. Everything of a curative nature that is suggested is tried by the jury composed of the whole profession; those things that are of no value are discarded; those that do good survive. It is only very occasionally that a healing method of merit escapes notice. There is no doubt that the body is subject to the influence of noxious elements and that it always reacts in a defensive way; but we ought not to call this protective reaction always *vis medicatrix naturae;* for it is a trait handed down from and through countless progenitors and developed by the life experiences of these progenitors. These protective reactions are simple in the unicellular organisms but highly complex as we ascend the scale. Defensive reactions differ greatly with different kinds of noxious influences; but each will train the organism toward a defensive response until tolerance is finally established. The power of suggestion as a curative agency has just as distinct limitations as has surgery; one of the problems at present is to find out just what those limitations are. And while suggestion is the only thing that will influence certain disease states, there are other conditions in which it has absolutely no place.

Dr. E. L. Morgan said that one would have to go back to very remote ages properly to discuss the paper; one would needs study the ascending history of medicine through witchcraft, priest craft, etc. Dr. Owen had said that "meritorious things are so easily and so soon forgot;" he should remind himself of Perkin's tractors and the long line of similar things that have had abundant and ill-deserved trial before relegation to the limbo of failure. Dr. Lamb, he felt sure, could tell of many an autopsy on cadavers dead of no recognizable cause; the cause of death in such cases must be some transgression of physico-chemical laws, which leave no anatomical evidence behind.

Dr. Williams said that the only suggestion he had to offer was that it is a distinct step backward to attempt to explain vital forces on a single basis. He agreed with Dr. Carr as to the limitations of therapeutic suggestion; he had very clear notions as to that. As to the *vis medicatrix naturae,* we have to invoke a whole series of reactions to explain vital phenomena rather than a single *vis.* As to Junod's derivations, do we not daily do much the same thing with passive hyperemia, with static electricity, diaphoretics, balneotherapy, etc., etc., all of which are being extensively studied. The paper was too broad to discuss in full; and one could not dissent from the whole paper, but must dissent from the general proposition.

Dr. Werber said that, in reply to Dr. Owen's thought that he could see elements of suggestion in Junod's work, Dr. Werber would say, if the two were germane, that Junod's haemospasia is in such an *intensified* form as to be deserving of a distinctive name, and would suggest that *enforced compensation* is more truly descriptive of his work.

In reply to Dr. Roy's query as to whether Dr. Werber would try out Junod's work on men or on the lower animals, he would say, on *men*.

Junod tells us that he performed his operation in thousands of cases without any fatality. And as long as we have that large number of patients to whom we are compelled to say that there are some harassing ills of life that must be borne; and as long as we have that large number of chronic sufferers who find the burdensome depressions we are not able to lift from them insupportable and seek relief in suicide, we should have no scarcity of suitable voluntary material on which to demonstrate this principle.

In reply to Dr. Carr's statement that under present conditions each member of the profession is constituted a committee of one to coöperate with our magnificently equipped hospitals to hasten the millennial dawn in medical practice, which sounds so very plausible and assuring, I would say that, unfortunately, this very great authority conferred on each member of the profession to force evolution is but too frequently used for exactly the *opposite* purpose of impeding the wheels of progress. The whole history of therapeutics proves this assertion. Wm. Harvey founded modern medicine in 1616 when he demonstrated the circulation of the blood in his lectures at the Royal College of Physicians in London. And, continuing to present his discovery in his lectures without effect, he boldly announced it to the world in his book published in 1628. Hume, the historian, records that not a single man in the whole of Europe who had then arrived at the age of forty years ever until the time of his death accepted the doctrine of the circulation of the blood, and that it was fifteen years before the first man accepted Harvey's discovery. And with such violence and obstinancy was Harvey's discovery antagonized by the profession that he was driven out of practice. And Harvey, in turn, a few years later, combated with equal violence and obstinacy the doctrine of the circulation of the lymph! So we see that under present conditions the natural course of evolution, even for our most basic truths, is extremely slow

Semmelweis was driven to an insane asylum to end his days for his enthusiasm in protecting women against puerperal fever. Auenbrugger was derided when he introduced percussion. James Currie met with vigorous opposition when he introduced cold baths in the treatment of typhoid fever. Mesmer and Braid were laughed at when they introduced hypnotism, and the major por-

tion of the profession is *still* laughing at hypnotism. Richard Lower, who introduced transfusion of blood, and Tagliacozzi, who introduced plastic surgery, were both assiduously persecuted on theological grounds. Pasteur met with much opposition when he proposed inoculations for hydrophobia. Koch was denounced as a quack when he brought forward his tuberculin. And diphtheria antitoxin was strenuously combated when it was first introduced. And so it has ever gone, and will always continue to go under similar conditions.

Pardon me for referring to a small incident in my own experience in this connection. In the fall of 1909 a conference on pellegra was advertised to be held in Columbia, S. C., in November, 1909. I either wrote to or talked personally with the men in charge of this conference and expressed the opinion that the *materies morbi* of pellagra causes a congestion which puts the forces of nature at a disadvantage in curing the disease, and that Junod's operation is the most powerful means ever introduced to relieve congestion, and that I thought it should be tried for the relief of pellagra, and requested the privilege of calling the attention of the conference to this theory. But they declined to have the matter brought to the attention of the conference. On September 20, 1911, I wrote to the editor of the *Journal of the American Medical Association,* requesting him to call the attention of those treating this disease to this theory, but he declined to do so. All of which, in my judgment, shows a lack of true scientific spirit, and our need of a Council the duty of which will be to investigate thoroughly all such matters.

We must not overlook the fact that we are living in an age when economy of energy and concentration of effort are *demanded.* Every extensive business in the world today, save the medical profession, is forced to maintain its experimental department. The science of magnetism and electricity has been developed wholly by the experimentalists; Edward Weston and Hiram S. Maxim were the two great experts in the early days. Manufacturing chemists in this country and abroad are all forced to provide for their experimental departments. Bakers must employ experts to pass on the food value of their flour, and to direct their operations. The Bakers' Association employs traveling experts to instruct them about their materials, apparatus and processes. All the steel manufacturers carry a corps of experts to test the products of the furnaces. The Mergenthaler Linotype Company expended more than ten millions of dollars before they ever declared a dividend, and most of it for experimental work, and this method they have kept up constantly since, and today have secured a monopoly of the printing business of the world for years to come. And so it goes through all the list.

The Agricultural Department will make an analysis of a worn

out soil for you and prescribe the needed elements to restore it. And when your hogs are dying of cholera the expert is at your beck and call to stamp out the disease. But often when physical and mental bankruptcy stares us in the face even "a multitude of counsellors" does not always insure us safety.

Is *soil or the hog* of greater importance to the Government or to the welfare of the country than the health of our citizens?

In reply to Dr. Williams I would say the word *vis* has only been used as a convenient term by which to designate all the powers by means of which nature protects herself against the results of disease or accident, and must, therefore, be understood to include *all* from the simple reactions of unicellular organisms to the most highly complex in man. True, I do suggest that Junod provoked these most highly complex reactions by the single means of inducing fainting, and just why his results followed this fainting I do not pretend to know. But until his work is disproved it must be accepted as recorded. There is no other remedy in the history of medicine that can be considered in the same class with Junod's haemospasia. And I believe that Junod himself was as ignorant of its rationale as I am.

In reply to the question of Dr. Stone as to why I do not do this work myself I have to say that in common with the great majority of the profession I have a much higher regard for my daily bread than I have for posthumous fame. I could not hope to do this work as thoroughly as Junod has done, and, even if I could, it would secure no lasting benefit to humanity. Think for a moment of the total lack of recognition given the life work of this inspired writer and investigator! In 1878 one thousand copies in English of his work on Haemospasia were published in London, and today only two copies of this work can be found in the whole world. If one had set out deliberately to blot his work and name from the memory of English-speaking people he could hardly have been more successful. Furthermore,, this is not at all my individual responsibility, for it is a reflection on the entire profession. And when we consider that in New York City in December, 1910, 1,185 persons died of pneumonia, and that if his operation is an infallible cure for pneumonia, as he says, we can begin to appreciate in a somewhat practical way the extent of this reflection without stopping to consider the cases of apoplexy that he restored at once to the power of speech and movement, or the many other serious conditions in which his operation proved successful.

What if everybody's business is proverbially *"nobody's business,"* and the logical conclusion is that we must have somebody whose sole business it is to give critical attention to such matters.

FATAL ANEMIA FROM TOXAEMIA OF PREGNANCY. REPORT OF A CASE TREATED BY DIRECT BLOOD TRANSFUSION.*

By W. W. Wilkinson, M. D.,

Washington, D. C.

In reporting the case which forms the subject of this paper I am indebted to Dr. DeWitt C. Chadwick, the attending physician, who very kindly gives me the privilege.

Mrs. S., age 28, married, white, housewife. Paternal grandparents died from apoplexy; maternal, from old age. Parents, two sisters and one brother living and in good health. Mother and one sister both had had slight attacks of rheumatism; father had some trouble with his kidneys some years ago. Positive history of tuberculosis in father's sister.

Previous history of patient.—Birth, normal; breast-fed; healthy infancy. Had measles, chicken pox, whooping cough and scarlet fever, the latter at the age of five. All these were mild attacks from which she made good recoveries without complications or sequelae, except the attack of scarlet fever, which was complicated by a purulent left otitis media leaving her permanently deaf on that side. Had had mild attacks of muscular rheumatism for the past several years. School life began at fifth year and continued about fifteen years. Not very studious, but made good progress. It had no effect on her health as far as she knew. Habits good. Until about a year ago was a hearty eater and possessed an excellent digestion. Drinks coffee in moderation; tea, milk and cocoa very seldom. No alcoholic beverages or drugs used. Has traveled a good deal in the United States and has spent several months in the mountains of North Carolina for the past three or four years. Usual weight 155 to 160 pounds.

Menstruation began at 12 years of age. Has been regular, with average amount of flow, lasting five days. Periods usually accompanied with severe pain. Occasionally has passed clots.

Married at age of 20. Was never pregnant until present case.

Present Illness.—The symptoms of her present illness became manifest shortly after she became pregnant. The first day of her last menstruation was July 14, 1909; quickening about December 15. The exact date and mode of onset are indefinite as the patient attributed her symptoms to a normal pregnancy. As near as can be determined, however, she began to experience trouble about the end of the third month of her pregnancy. This consisted in a loss of weight and strength, nausea and vomiting (the latter occurring every few days), and a progressing anemia. Ap-

* Read before the Medical Society, November 1, 1911.

petite was poor and she was unable to digest her food. Suffered constantly from diarrhoea.

On April 6, 1910, she was taken to Garfield Hospital. During the previous six weeks she suffered from dyspnoea, intermittent headache and backache and marked nausea. Vision unimpaired; no urinary symptoms, subjective or objective. She was admitted to the hospital with severe labor pains. At 12:56 A. M., April 7, four weeks before term, she gave birth to a dead hydrocephalic female child. Following delivery bleeding was profuse enough to require a hot intra-uterine douche, which with massage of the uterus checked this condition. Up to April 15 she had four or five large fluid movements each day. Sat up with a back rest on the 17th. Out of bed on the 23d for five minutes, but broke out with a cold sweat and became cyanosed about her mouth, with rapid pulse. Recovered in a short time after being put back to bed. Left the hospital for her home April 25, 1910.

Blood examination April 18, eleven days after delivery, was: Red cells, 3,600,000; hemaglobin, 40 per cent.; color index, .5; leucocytes, 12,000.

She remained in the hospital twenty days. Her temperature was elevated the entire time, and quite continuous, maintaining a fastigium of about 100; went subnormal three times. Her pulse ranged from 120 to 74, averaging about 100. Respirations averaged 24.

After removal to her home on April 25 she brightened up for a few days, but diarrhoea, progressive weakness, loss of appetite and anemia continued. The temperature was practically normal until May 15, when it began to rise in the evenings, going higher each day until she was taken to the hospital.

May 24 Dr. Thomas Kelley saw the patient in consultation with Dr. Chadwick, Dr. Kelley making a pelvic examination and finding nothing abnormal. On May 26 Dr. Sterling Ruffin saw her in consultation with Dr. Chadwick. She was first seen by the writer May 27, 1910, on which date he made a blood examination, with the following result: Red cells, 2,608,000; Hemaglobin (Sahli) 20 per cent.; Color index, .34; Leucocytes, 1,500. No nucleated red cells. I again saw her on May 29, in consultation with Dr. Chadwick, at which time I made a physical examination and learned of her history. She was very anemic, skin lemon-tinted, without lesions; nails, conjunctiva, and lips very pale; no glandular enlargement; spleen normal; liver slightly enlarged; moderate degree of tenderness over the abdomen, and some tympanites. No oedema of the extremities; tongue red, coated, and ulcerated beneath. Heart normal in situation and size; soft systolic murmur at apex and pulmonary areas, neither of which was transmitted. Lungs normal.

It was decided to take the patient back to Garfield Hospital, and this was done May 29.

May 30 Dr. Ruffin made a physical examination as follows: Appearance greatly prostrated; very anemic; lower lids looked almost bloodless; sclerotics slightly icteroid. General condition poor. Decubitus dorsal; legs extended. Skeleton well developed; bones rather large; joints and periarticular tissues normal. Muscles small and flabby; no localized atrophy. Fat scant in amount and evenly distributed. Skin pale and yellowish; (Cachexia); few ecchymotic spots on legs and arms. Hair black, moderate in amount and rather oily. Nails strikingly pale. Glands cervical, axillary, and inguinal, not palpable; epitrochlears palpable on either side (?); thyroid not enlarged; mammae very soft and pendulous.

Digestive System.—Lips pale; slight erosion of mucous membrane and there had been some bleeding of lips; teeth in good condition; slight sordes. Tongue pale, clean, tremulous. Extensive ulceration underneath tongue, more on left side. Uvula and soft palate pale and relaxed. Tonsils small and not inflamed. Deglutition easy.

Examination of Abdomen.—Moderate distension, most evident in center portion. Respiratory movements normal. Surface veins not enlarged. Palpation everywhere soft. No tenderness or rigidity. Spleen not palpable. Under surface of liver felt with difficulty well up beneath costal margin. No fluid in flanks. Lower pole of right kidney palpable on deep inspiration. Abdomen everywhere tympanitic except over spleen and liver. Lower border of liver dulness in mid-clavicular line ¾ inch above costal margin. Anus, rectum and sigmoid flexure not examined. See report on stools.

Circulatory System.—No bulging of pericardium. Cardiac impulse and apex beat not visible. Apex best located in 5th interspace inside left mid-clavicular line. Cardiac impulse rapid and feeble. No thrill. Percussion showed no enlargement. Heart sounds of poor quality. At apex and along left margin of sternum there was a soft, blowing systolic murmur with slight if any transmission to axilla. Over pulmonic area there was an intense blowing systolic murmur of harsh quality not transmitted up vessels of neck. Second pulmonic sound not accentuated. Considerable throbbing of large vessels of neck and slight throbbing of abdominal aorta. Brachials not visible. Accessible arteries quite soft. Pulse of small volume, 120 per minute, regular and of low tension. Veins normal. Capillaries, no rupture or telangiectasis. Moderate capillary pulse in nails. See reports on blood.

Respiratory System.—Normal.

Nervous System.—Not examined in detail. Patellar reflex present. Pupillary reflexes normal. Genito-Urinary System; see reports on urine.

On this date blood examination showed 1,500 leucocytes and a

differential count 50 per cent. polynuclear, 49 per cent. lymphocytes and 1 per cent. mast cells. From June 1 to 4 daily blood examinations were made. The red count was 1,200,000 on the 1st, progressively decreasing until on June 4 it was 640,000. The hemaglobin 20 per cent. June 1, 10 per cent, June 4. Color index .7 June 1 and 4. Leucocytes June 1 1,600; rose to 3,500 June 4. The differential count June 4 showed a rise in the polynuclear percentage (67) and a fall in the lymphocyte percentage (30). Along with the retrogressive blood findings the clinical condition of the patient became more alarming. In discussing some method of arresting the condition it was suggested by one of us (the writer) that direct transfusion of blood might be of value, and this procedure was decided upon. Her brother offered himself as donor. On June 4 hemolysis and agglutination tests with the blood of the patient and donor were made by Dr. Nichols and the writer to determine the feasibility of this transfusion, as far as such experiments *in vitro* would show it. No agglutination or hemolysis occurred, as shown by the following:

Agglutination Tests.

	Corpuscles.	*Serum.*	*Result.*
1	Recipient	Donor	Negative.
2	Recipient	Recipient	Negative.
3	Recipient	Donor and Recipient	Negative.
4	Recipient and Donor	Donor and Recipient	Negative.
5	Nichols	Donor	Positive.

Note.—Dr. Nichols' blood cells are agglutinated by nearly any serum, and in that respect furnished a good control.

Hemolysis Tests.

1 per cent. Emulsion of Recipient's washed corpuscles.

1	Serum: Donor	Negative.
2	Serum: Recipient	Negative.
3	Serum: Donor and Recipient	Negative.

Note.—Time of incubation, two hours.

Accordingly, at 12:23 P. M., on June 5, direct transfusion was performed by Dr. James F. Mitchell, lasting 43 minutes. The left radial artery of her brother was joined to the left median basilic vein of the patient by means of a Crile anastomosis canula. Immediately following the transfusion there was a marked change in the clinical condition of the patient. She was cheerful and bright at 8 P. M., and had a good night, sleeping quietly throughout. Blood examination on June 6 showed red cells 1,300,000; hemaglobin 25 per cent.; color index .86; leucocytes 4,600. Up to June 10 there was a rise in the red cells to 1,481,000, the hemaglobin remaining the same, 25 per cent. On June 13 though, the red count, hemaglobin, and leucocytes began to fall and progressively

did so until June 22, when the red count reached 1,140,000; hemaglobin 18 per cent. There was also a rise of the relative percentage of polynuclear cells to 83 and 71 and a corresponding fall in the lymphocytes. The clinical condition of the patient following the transfusion may be said to have been in direct ratio with the blood findings. Beginning on the 13th she was daily taken in a chair to the sun parlor. She perceptibly began to retrograde on the 18th, thirteen days after the transfusion. Appetite became poor, nausea and vomiting were fairly constant, and diarrhoea was very troublesome. She also became restless and slept very poorly.

On June 29 it was decided to do another transfusion, and this was again performed by Dr. Mitchell, the donor being the patient's brother as in the first instance. This time the transfusion lasted one hour and eighteen minutes. Following this transfusion the same clinical improvement was noted as in the first instance—in fact a greater one. On July 1 she complained of itching and this continued three or four days, being supplemented by urticaria on July 3. Her blood examination July 3 showed red count 1,576,000; hemaglobin 30 per cent.; color index .86. Patient continued about the same until July 12, when she left the hospital for the mountains of North Carolina, the high altitude of that section being thought a wise therapeutic measure, with respect to erythrocytic regeneration. Blood examination on this date showed red cells 1,800,000; hemaglobin 31 per cent.; color index .77; leucocytes 3,400. Differential count polynuclear 57.5 per cent., lymphocytes 37 per cent.

She stood the trip well, but died August 5, 1910, and I was unable to secure the details of her condition after she left this city.

During her stay in the hospital she ran a fever of varying character—from 103 to normal, though for the most part it ranged between 100 and 101. She had a troublesome diarrhoea practically the entire time. She experienced considerable discomfort from an ulcer beneath her tongue, and for a large part of the time her tongue was so sore that it seriously interfered with mastication. Her blood pressure, which was taken nearly every day, varied between 100 and 115. Her pulse varied also considerably, practically never below 100, at times 140. Respirations were practically normal, 28 being the highest recorded.

She received a large amount of treatment, not only treatment directed towards the constitutional condition but symptomatically. Her bowels were very troublesome, requiring opiates, colonic irrigation with salt solution and boric acid. Sanatogen, somatose, olive oil rubs, inhalations of oxygen, Blaud's pills, hypodermics of citrates of iron, and normal blood serum, all came in for their several effects.

On May 27 examination of the urine showed: acid reaction; specific gravity 1,008; trace of albumen; no sugar; trace of indican; and an occasional hyaline cast. Examination of the feces on this date showed: a watery stool; absence of gross and occult blood; small amount of mucus, containing leucocytes; absence of tubercle bacilli, ova and parasites; and well digested. These two examinations were made by Dr. Brandenburg. Examination of urine by myself May 30 showed: amber color, cloudy appearance, acid reaction; specific gravity 1,011; albumen negative; sugar negative; urea 1.5 per cent.; indican not excessive; bile pigment negative; acetone present;diacetic acid negative; occult blood present; a few hyaline and finely granular casts; several cylindroids; very little epithelium; numerous erythrocytes; leucin and tyrosin negative. The bladder was not catheterized and she had a vaginal discharge which may have accounted for the blood.

Two subsequent examinations were made of the urine on January 21 and 25 by the hospital staff. That on the 21st showed a trace of albumen, specific gravity 1,014, no casts, and numerous leucocytes. That on the 25th was practically the same, except that the specific gravity was 1,026.

DISCUSSION.

To the writer this case presents three very interesting points: 1st. The occurrence of such a condition as a complication of pregnancy. 2d. The etiological factor in the anemia and its diagnosis with respect to the entity of Pernicious Anemia as commonly understood. 3d. The basis for, and efficacy of, direct blood transfusion as a therapeutic measure.

Obstetric authors seem to regard Pernicious Anemia as a rare accident of gestation, and in what may be called the "puerperal type" the greater number have occurred after labor and give a definite history of sepsis or hemorrhage.

Cabot, in his article on Pernicious Anemia in Osler's Modern Medicine, quotes statistics of 1,200 cases collected in this country and abroad. Of this series there were 35 cases beginning during pregnancy or shortly after parturition. He excludes 17 of these as septicemic or post-hemorrhagic, leaving 18 cases. He then states that these 18 are presumably explained as a hemolytic manifestation of autointoxication brought about by the pregnant state and likewise manifesting itself in nephritis, eclampsia and pernicious vomiting.

With respect to the etiological relationship of pregnancy and the puerperal state to pernicious anemia, I quote from his article: "There seems to be considerable reason for separating this group of cases from the main body of those which go under the name of pernicious anemia; for, in the first place, these cases arise at an age which we have shown to be uncommon, judging from the table of statistics; practically all of them occur before

the thirty-fifth year and the great majority before the thirtieth. Then they occur in the sex which in general is relatively less often affected. Third, their course is much more apt to be progressive and without the characteristic remissions ordinarily seen. Lastly, they are not infrequently curable, provided their cause is removed. For all these reasons it seems best to draw a distinction between this group of cases and the larger cryptogenetic group. When the cause of this larger group is found it will probably turn out to be distinctly different from that of the cases occurring during pregnancy and after parturition."

It was recognized that the paramount condition in the case reported was the profound and progressive anemia, and our chief problem was to determine its cause. While unlikely from history and physical examination, it was thought necessary to exclude syphilis and tuberculosis. The Wasserman test was negative and she gave no reaction to tuberculin. Hemorrhage had not existed. Intestinal parasites were not present; likewise malarial parasites. The question of infection was considered, both on account of its being a recognized cause of anemia and also on account of the fever. In opposition to this are the following facts: The condition was apparently well established some months before labor; the patient at no time before or after labor had any lesion or condition suggesting infection, and fever is a constant symptom of anemia, having been present in 80 per cent of Cabot's cases. Attention is also directed to the very low absolute leucocyte count (1,500), and the low relative count of the polynuclears, which is in keeping with the blood in anemia and at variance with infection.

There remained for consideration either a pernicious anemia, with an anomalous blood picture, or a profound secondary anemia due to some active hemolytic agent. That the patient had an anemia pernicious in its clinical course was unquestionable: but was it a case of pernicious anemia as we regard that disease? Certainly the blood findings did not indicate it. The color index was not only minus, but extremely low (.34), and it never in the subsequent blood examinations went to 1; nucleated red cells were practically absent, only two normoblasts being found in five differential counts and no megaloblasts, and neither anisocytosis nor poikilocytosis was marked.

It may be remarked that the blood findings closely approximate those seen in the aplastic type of pernicious anemia. In this we have a low color index, absence of nucleated red cells, high percentage of lymphocytes (as high as 90 per cent.), a rapid and progressive course, and frequent hemorrhages. The case under discussion lasted practically ten months, whereas all the reported cases have died within three months from the beginning of the attack. Again while the relative lymphocyte percentage was high

(49 per cent.) on May 27, it progressively fell to normal. There were no hemorrhages.

Symptomatically, the case shows many features of a case of pernicious anemia of the metaplastic type. The blood findings, on the other hand, closely approximate those of the aplastic type. The persistent hemolysis and aplasia of the erythrogenic mechanism suggest the action of some powerful toxin and one hardly feels satisfied in classing it as an anemia of orthoplastic origin, particularly when the clinical aspect of the case is considered.

If we review the case, we find that the patient was in good health before conception, weighing 155 pounds. At about the third month of her pregnancy she developed symptoms of toxaemia, as evidenced by nausea, vomiting, diarrhoea and headache. These symptoms continued more or less constantly up to the time of delivery. During this time there was a progressive loss of strength and development of anemia. Her weight fell to 130 pounds. The assumption that there was some active hemolytic agent at fault, the result of metabolic perversion incident to the pregnant state, seems warranted.

I recently saw an obscure case of anemia in consultation with Dr. Hynson, in which, after repeated physical and laboratory examinations, no cause could be determined other than that of deranged metabolism. Clinically it presented many features of pernicious anemia, and possibly it was, but one could hardly so diagnose it in view of the following blood examination, and this is what one usually bases a diagnosis of pernicious anemia upon:

Red cells 3,112,000; Hemaglobin 25 per cent.; Color index .4; Leucocytes 5,200. Stained specimen showed a moderate poikilocytosis and loss of hemaglobin from the red cells. Relative proportions of leucocytes apparently normal.

Examination six months later showed Hemaglobin 40 per cent.; Red cells 3,040,000; Color index .66; Leucocytes 5,300.

Considerable variation in size and shape of red cells. This patient died a month later and no autopsy was obtainable.

With respect to direct blood transfusion it is realized that transfusion in pernicious anemia has few advocates, and that the experience so far with it does not justify its employment, but, having an obscure case with an anomalous blood finding, there was a possibility that new blood might tide the patient over or supply some serum constituent. Cabot, in his article, dismisses it in a few words by stating that it is not to be recommended and should not be done. Crile, in his book on "Hemorrhage and Transfusion," 1910, reports two cases of his own and six from other sources in which transfusion was performed. The majority of these cases showed slight temporary improvement, but were uniformly fatal, the new blood being rapidly hemolysed. He concludes that pernicious anemia in an advanced stage is not fa-

vorably modified by transfusion, and further that it has not been demonstrated that it is favorably modified in an early stage. Da Costa, in "Modern Treatment," 1911, states that transfusion of human blood has been more or less extensively advocated in pernicious anemia and, while isolated examples of brilliant results bespeak a trial of this method of treatment in selected cases, more often it is followed by no perceptible benefit. He thinks its use should be confined to fulminant cases and those in which arsenic fails to do any good; also, that theoretically blood transfusion should help anemia because of the marrow-stimulating and antitoxic properties of the serum transferred from the healthy donor.

Keen (System of Surgery, 1910) states also that apparently the good results which follow direct transfusion are not entirely due to the mere quantitative or functional reinforcement of the blood, but to the stimulating effect of the transfused blood upon the bone marrow.

In studying the reported cases of transfusion in anemia there has been noted a *temporary* improvement in a large number of them, not only in the blood but in the clinical condition. This improvement, while not lasting, has persisted for a varying length of time, in the present case apparently longer than in the majority. The chief problem to be met seems to be the arrest or neutralization of the hemolytic agent; but, unfortunately, being ignorant of its nature and also its antagonistic body or bodies and without means of determining them, we have been and are still working in the dark. The chief dangers in the therapeutic application of transfusion are Hemolysis, Agglutination, Precipitation, and toxic interaction of the serums.

Crile thinks that hemolysis is not a destruction of the red cells alone, but a toxic condition gaining its name from the fact that the red corpuscles are destroyed. Serums of pathologic blood *may* act as a poison and incidentally destroy certain of the red cells. Also, it is a question whether or not the interaction of sera on the red corpuscles does not cause the formation of new toxic substances which were previously not present in either. As we hope by transfusion to supply a deficient or neutralizing body, it is disappointing enough to fail in *this* respect; but when added to this we run the risk of toxic interaction of the serums the expediency acquires an added doubt.

Agglutination and precipitation seem to be negligible factors. As a matter of fact the majority of surgeons seem to regard hemolysis as negligible, but several deaths have been reported as due to it and it seems wiser to make the tests.

The therapeutic application of blood in anemia as regards its dosage and time of administration at present is entirely empirical. Possibly we introduce too much blood; possibly we do not give it frequently enough; and the blood of a donor, with a tendency to

overproduction of red cells, might be more advantageously used than simply a homologous one.

SUMMARY.

1. This paper is not an attempt to prove that pernicious anemia is due to autointoxication, but to report a case closely resembling it in its clinical aspects and blood findings where such an etiological factor seems at fault.

2. Recognition of the fact that the toxaemia of pregnancy can produce a fatal anemia should direct our attention to the blood of pregnant women; and the development of a *progressive* anemia, particularly when combined with toxaemic symptoms, would seem to justify the termination of pregnancy just as much as eclampsia or pernicious vomiting.

3. The value of direct blood transfusion in early or late stages is debatable, with the evidence against it. It was advised and tried in this case as a last resort. Theoretically its application is alluring, but so many unknown factors enter into the field that a larger application and experience must decide it.

4. As far as I can find from the literature this is the first case of puerperal *anemia* transfused. A number of transfusions have been performed for post-partum hemorrhage and several for eclampsia, with good results.

Dr. Roy said that the case reported was most interesting; it belonged to a class of cases which should always excite the special interest of the profession, involving as it did the differentiation between the pernicious and the aplastic anemias. He himself had never seen a case of pernicious anemia in which the color index was not plus 1; it is unquestionable, however, that pernicious anemia may occur without nucleated red cells. The aplastic anemias are more rapidly fatal than the pernicious form. He cited a case reported from Massachusetts in which the red cell count went up from 1,000,000 to 4,000,000, when a sudden relapse occurred in which the patient died. It may be remarked that in aplastic anemia the blood platelets are absent. In true pernicious anemia transfusion usually hastens death. It seemed distressing to him that we should know little more about these anemias than was known in 1828; the theory has been advanced that the condition is due to a lipoid toxic agency, but this is only a theory and real progress is lacking. If anemias of the type under discussion really be due to proteolytic defects, then diet should control the condition; but there are no such case reports as yet to be found and there is nothing upon which to base an opinion; there is here an opportunity for the laboratory worker.

Dr. Nichols said that Dr. Wilkinson had covered the subject

THE GARFIELD MEMORIAL HOSPITAL, CLINICAL LABORATORY, WASHINGTON, D. C.——EXAMINATION OF BLOOD.

Name of patient, Mrs. E. K. S. Service of Dr. Chadwick. Ward B, Room 22.

Year, 1910.	Apr. 18.	May 27.	May 30.	June 1.	June 2.	June 3.	June 4.	June 5.	June 6.	June 8.	June 10.	June 13.	June 15.	June 18.	June 22.	June 29.	July 3.	July 12.
Erythrocytes per c. m. m.*	3,600,000	2,608,000	...	1,280,000	1,540,000	1,250,000	640,000		1,300,000	1,447,000	1,481,000	1,214,000	1,192,000	1,060,000	1,140,000		1,576,000	1,800,000
Hemoglobin, per cent†	40	20	...	20	25	25	10		25	25	25	23	25	20	18		30	31
Color index‡	.50	.34	...	.71	.73	.89	.71		.86	.78	.76	.89	.93	.83	.72		.86	77
Leucocytes per c. m. m.	12,000	1,500	1,500	1,600	1,800	3,400	3,500		4,600	5,400	5,550	4,400	3,900	4,800	...		...	3,400
Differential count, cells	...	...	100	...	...	...	100		...	...	...	200	...	200	...		...	200
Small lymphocytes	...	...	38	...	...	...	14		...	...	...	8.5	...	15.0	...		...	25 5
Large lymphocytes	...	...	11	...	...	...	16		...	...	...	7.5	...	8.5	...		...	11.5
Transitional	...	...	...	...	...	...	.....		...	...	...	.....	...	3.0	...		...	2.5
Polymorphonuclear	...	...	50	...	...	...	67		...	...	...	83.0	...	71.0	...		...	57.5
Eosinophile	...	...	...	...	...	...	.....		...	...	...	.....	...	1.0	...		...	1.5
Mast cells	...	...	1	...	...	...	2		...	...	...	1.0	...	1.0	...		...	1.0
Myelocytes	...	...	0=100	...	...	...	1=100		...	...	...	0.0=100	...	0 5=100	...		...	0.5=100
Coagulation	very slow hydremia	...	...	...	...	...	slow		...	...	...	.....	...	.....	...		...	.....
Malarial parasites	negative	...	...	...	...	...	negative		...	...	...	negative	...	.....	...		...	negative
Macrocytes	few	...	...	...	...	...	numerous		...	...	...	same as 4th	...	same as 13th	...		...	not as numerous
Microcytes	few	...	...	...	...	...	.....		...	...	...	.....	...	.....	...		...	.....
Poiloilocytes	moderate	...	...	...	...	...	present but not marked		...	...	...	moderate	...	slightly increased	...		...	not as numerous
Microblasts	...	none	...	...	...	...	none		...	...	...	none	...	none	...		...	none
Normoblasts	...	none	...	...	...	...	1 in 100 cells		...	...	...	none	...	1 in diff. ct.	...		...	none
Megaloblasts	...	none	...	...	...	...	none		...	...	...	none	...	none	...		...	none
								Direct transfusion of blood, 43 minutes.				cells pale and unpigment'd				Direct transfusion of blood, 78 minutes.		

* 800 squares counted. † Sahli. ‡ 4,500,000 cells as normal.

rather fully and there seemed to be nothing to be said in addition. He had discussed the classification of the anemias very interestingly. Transfusion as a means of treatment seemed to Dr. Nichols valueless except to tide the patient over to such a time as the normal blood making tissues take up their proper functions. New bone marrow seemed to be the necessary element in the cure of anemia of the pernicious type.

Dr. H. D. Fry was interested in the case report. The first question he would ask was: What was the matter with the woman? Did she have pernicious anemia or tuberculosis? Both these diseases seemed to have been excluded. But why blame the anemia on toxemia of pregnancy? This latter condition should have terminated with labor, but the patient became worse after this event. Also, toxemia should have occasioned high blood pressure, but this was uniformly low in the case under consideration. He would ask also why was this woman not bled before or during the transfusion? This should be done both to remove bad blood and to relieve the right heart.

Dr. Jno. F. Anderson had seen with Dr. Fry a case of secondary anemia following a ruptured ectopic pregnancy, and had examined the blood of the patient. Transfusion was followed by very happy results.

Dr. Wilkinson said as regards Dr. Fry's questions: there was no reason to suspect tuberculosis as patient had no symptoms referable to that disease. She had a pernicious anemia and for reasons given in his paper a toxaemia incident to the pregnant state seemed the cause. He did not believe that tuberculosis could cause such an anemia. All cases of toxaemia of pregnancy do not present high blood pressure, as for instance pernicious vomiting, and all cases of the eclamptic type do not recover with the termination of labor. With respect to bleeding before direct transfusion of blood he did not think this was usually practiced.

In Memoriam.

DR. HENRY ALFRED ROBBINS.

On the 26th day of October, 1911, the Medical Society of the District of Columbia lost one of its oldest members, Dr. Henry Alfred Robbins, who died after a prolonged illness at his residence in this city.

Born in St. Louis, Mo., in 1839, Dr. Robbins had attained the age of 72 years. His early education began in the schools of Washington, D. C., and Norwich University, Vermont. He

graduated in medicine at the University of Pennsylvania in 1861 and subsequently completed his medical education in the universities and hospitals of Vienna, Berlin, London and Paris.

At the outbreak of our own civil war, in 1861, Dr. Robbins enlisted as a medical cadet in the Union Army and did efficient service as an army surgeon until the close of the war, in 1865. On visiting Europe some years later he arrived in Paris at the time of the Commune, during the Franco-Prussian war, and again rendered efficient service as an army surgeon, presumably in the army of France (?).

Returning from Europe, Dr. Robbins began medical practice in this city, devoting himself particularly to his chosen specialty of dermatology and genito-urinary disease, and which he continued until the early part of the present year. It was in this definite field of medical work that Dr. Robbins acquired distinction as a lecturer, hospital attendant, and medical author. His contributions to medical literature during the period from 1892 to 1908, as shown by the Index Catalogue of the Library of the Surgeon General's Office, U. S. A., comprise thirty-three publications, chiefly relating to his chosen specialty.

Dr. Robbins has served this Society as one of its Vice-Presidents and he was an honored member of several other medical organizations of this city.

Your committee beg to report the following resolutions:

*Resolved,** That while Dr. Robbins had not been, of late years, a very constant or active participant in the work of this Medical Society, he had, nevertheless, faithfully performed all of its duties and obligations, and it gives us pleasure to honor his name and his work, and to pay our tribute of respect to his memory.

Resolved, That we extend to his bereaved family our sincere expression of sympathy and regret, and that a copy of the foregoing record and resolution be forwarded to it as an evidence of the same.

(Signed) A. F. A. King, M. D.,
Arthur J. Hall, M. D.,
Frank E. Gibson, *M. D.,*
Committee.

SURGEON GENERAL WALTER WYMAN.

Whereas, The Medical Society of the District of Columbia learns with sincere regret and profound sorrow of the death on November 21, 1911, of Surgeon General Walter Wyman, an honorary member of the Society, your committee begs permission to submit the following summary of the life of Doctor Wyman:

* Adopted by the Medical Society, November 15, 1911.

Surgeon General Wyman was born in St. Louis, Mo., in the year 1848, and received his preliminary education in the city of his birth. He later attended Amherst College, from which he received the degrees of A. B. and A. M. during the years 1870 and 1889, respectively, and the degree of LL. D. in 1911.

He entered the Marine Hospital Service in 1876, and soon thereafter began to demonstrate the ability for organization with which nature had so wonderfully endowed him in the amelioration and prevention of infectious diseases—an ability that seemed to grow constantly during his incumbency in office with the respective ranks of Surgeon and Supervising Surgeon General under the old organization of the Marine Hospital Corps and later as Surgeon General of the Public Health and Marine Hospital Service.

Among some of his most notable achievements during his administration were the beneficial measures for the physical relief of deckhands upon steamers of the Western and Southern rivers as well as for the crews of oyster boats on the Chesapeake Bay; the scientific fight waged against cholera in 1893 that was so effective in its results; the establishment of the first Government Sanitarium for the treatment of tuberculosis, at Fort Stanton, New Mexico, during the year 1894; the creation and establishment of the special laboratory for the investigation of leprosy at Hawaii; the urging and subsequent enactment of laws regulating the manufacture and sale of viruses, serums, antitoxins and similar products; the urging of laws by Congress and their subsequent enforcement as concerns quarantine; quarters and food for friendless seamen, that were all, without exception, most humane in their scope and functions.

It was under his authority, encouragement and approval that the nucleus of the present Hygienic Laboratory was begun in New York City under that untiring reasearch worker, Dr. J. J. Kinyoun, and the laboratory was later moved to Washington, where, by still further effort and planning upon the part of the Surgeon General it has continued to grow, under such directors as Dr. Milton J. Rosenau, now of the Chair of Preventive Medicine, Harvard Medical School, and Dr. John F. Anderson, both men of international reputation and authority.

General Wyman filled many positions of honor in his profession and in each instance the office sought the man. He was a member of the Board of Directors, Government Hospital for the Insane; President, International Sanitary Conference of American Republics; Chairman of the International Sanitary Bureau of the American Republics; honorary member of the Imperial Society of Medicine, Constantinople; of the Philadelphia College of Pharmacy; of the American Association of Obstetricians and Gynecologists and the Medical Society of the District of Columbia.

He has been president of the American Public Health Association; of the Association of Military Surgeons; first vice-president of the American Medical Association; vice-president and acting president of the American National Red Cross; president of the District of Columbia Sons of the Revolution; governor of the District of Columbia Sons of Colonial Wars, as well as a member and officer of numerous other societies. He was the author of many papers and addresses all tending to improve the physical condition of his fellow man.

Conscientious, wise, and thoughtful in his administrative duties, possessed of great energy, courage, and initiative, and gifted with farsightedness as to the needs of humanity to a most marked degree, all of these attributes being blended or tempered with a kindly heart, he has, by these combined virtues, coupled with hard, tireless, self-sacrificing work, built up a great national bulwark of defense from disease, of which this nation is justly proud, and upon whose ramparts has been planted a flag that shall stand for centuries, bearing this legend, "Scientific Preventive Medicine."

As an evidence of the man's intense humanity, one of his greatest works may be cited in the urging and enforcing of laws that have largely mitigated the cruelty and physical sufferings of friendless seamen who were, indeed, "strangers in a strange land" and were "those that go down to the sea in ships and do business on great waters," and upon authority of the Bible, great must be his reward, just as will surely be the case of all physicians in our own city and elsewhere who daily perform unknown and unheralded good works that are uncried from the house tops to the public and sometimes not even known to the patient or sufferer himself.

In the language of Victor Hugo, when asked if he (Hugo) believed he would live again: "He has finished his day's work, but he has not finished his life." His day's work began the next morning. His tomb is not a blind alley; it is a thoroughfare. It closes on the twilight of his busy, useful life; it opens on the dawn.

> "There is no death! What seems so is transition;
> This life of mortal breath
> Is but a suburb of the life elysian,
> Whose portal we call Death."

*Therefore, be it resolved,** That in the death of General Wyman the medical profession has lost one of its most valued members and the United States one of its ablest and most useful officers; and

Be it further resolved, That the Secretary of the Medical Society of the District of Columbia be instructed to transmit a copy

*Adopted by the Medical Society, November 29, 1911.

of these resolutions and remarks to the family of Doctor Wyman and to the respective chiefs of divisions of the Public Health and Marine Hospital Service Bureau.

(Signed) George Tully Vaughan, M. D.,
H. L. E. Johnson, M. D.,
Wm. J. Manning, M. D.,
Committee.

PERMANENT HOME FOR THE MEDICAL SOCIETY.

December 12, 1911.

To the President of the Medical Society:

Your committee, appointed for the purpose of obtaining funds for the establishment of a permanent home for the Medical Society of the District of Columbia, has the honor to make the following report:

Your committee was appointed for the purpose of collecting a fund, which, by the terms of the subscription, expires automatically on December 31, 1911, if the sum of $25,000 has not been subscribed at that date.

The committee begs to report that, after a more or less complete canvass of the members of the District Medical Society, they have only been able to add $2,545.00 to the funds which had already been obtained through the efforts of Dr. A. F. A. King. The whole sum so far subscribed through the solicitations of Dr. King and the committee equals $11,545.00.

Your committee regrets very much to report that their canvass has not been as successful as they could have wished, but this has been in no way due to their want of diligence or their desire to come before you with the full amount of funds desired.

Your committee believes that never before has a society had such an opportunity before it in the already made subscription of $9,000, obtained from sixteen members of the Society, requiring only the addition of $16,000 to be subscribed by the whole membership as in this case, and we regret to state that the membership has not risen to this opportunity.

The members of the Society must recognize how unfortunately they have been housed in the last few years, and it seems to us that the desirability of possessing our own place of meeting would be too patent to everyone.

It is a well-known fact that no organization has ever been helped unless its members were willing to help themselves. There are only two practical courses open for the present committee. The first is the continuation of the committee for another year, empowering them to see all of the present subscribers so far secured and request them to endorse their gifts for another year, and then endeavor to obtain additional subscriptions during the

coming year. The other method is to discontinue the committee and adopt some other way of raising the funds, allowing the subscriptions to cease automatically on January 1st.

CHAS. W. RICHARDSON, *Chairman.*
A. F. A. KING,
L. MACKALL,
JAMES D. MORGAN,
SAMUEL S. ADAMS,
W. M. BARTON,
Committee.

Names of the subscribers who have conformed to the resolution of the Medical Society and sent in signed subscription blanks:

Dr. Sterling Ruffin	$1,000	Dr. Wade H. Atkinson	50
Dr. George M. Kober	1,000	Dr. I. H. Lamb	50
Dr. A. F. A. King	1,000	Dr. R. T. Holden	50
Dr. Wm. Gerry Morgan	1,000	Dr. Chas. R. Collins	50
Dr. Chas. W. Richardson	1,000	Dr. H. S. Dye	50
Dr. J. Dudley Morgan	500	Dr. Chas. S. White	50
Dr. J. Wesley Boveé	500	Dr. O. A. McKimmie	50
Dr. I. S. Stone	500	Dr. W. O. Owen	25
Dr. Louis Kolipinski	500	Dr. J. W. Chappell	25
Mr. Barry Bulkley	500	Dr. F. Fremont-Smith	25
Dr. W. H. Wilmer	500	Dr. F. O. Roman	25
Dr. T. N. McLaughlin	500	Dr. F. B. Bishop	25
Dr. Louis Mackall	250	Dr. Lewis J. Battle	25
Dr. John B. Nichols	250	Dr. W. W. Wilkinson	25
Dr. A. L. Stavely	200	Dr. S. H. Green, Jr	25
Dr. W. M. Sprigg	200	Dr. E. P. Magruder	10
Dr. N. P. Barnes	100	Dr. Arthur Snyder	10
Dr. J. H. Metzerott	100	Dr. L. Eliot	10
Dr. W. M. Barton	100	Dr. H. W. Kearney	10
Dr. M. F. Cuthbert	100	Dr. Raymond A. Fisher	10
Dr. A. R. Shands	100	Dr. R. W. Conklin	10
Dr. Francis R. Hagner	100	Dr. S. R. Karpeles	10
Dr. J. VanRensselaer	100	Dr. G. C. Clark	10
Dr. C. M. Hammett	100	Dr. Henry W. Jaeger	5
Dr. D. Olin Leech	100	Dr. Geo. H. Magee	5
Dr. Louis Johnson	100	Dr. A. Kemble	5
Dr. J. R. Wellington	100	Dr. A. P. Tibbets	5
Dr. W. A. Wells	100	Dr. C. B. Conklin	5
Dr. W. K. Butler	100	Dr. E. W. Burch	5
Dr. L. H. Taylor	75	Dr. Virginius Dabney	5
Dr. P. S. Roy	50	Dr. E. T. W. Franklin	5
Dr. D. K. Shute	50		
			$11,545

PROCEEDINGS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Wednesday, November 1, 1911.—The President, Dr. W. M. Barton, presided; about 85 members present.

The following candidates for membership were elected:
R. T. J. Barber, College Physicians and Surgeons, Baltimore, 1886.
John E. Bowers, George Washington University, 1908.
J. Lester Brooks, George Washington University, 1909.
Fielding H. Garrison, Georgetown University, 1893.
Wm. F. McLaughlin, George Washington University, 1909.
H. W. Sisco, George Washington University, 1909.
Lewis B. Thomson, Maryland Medical College, 1905.

The Treasurer presented his report for October, showing: Received, $398.00; disbursed, $1.50.

The following applications for active membership were read:
Russell B. Main, George Washington University, 1900.
Michael Joseph Ready, Georgetown University, 1905.
Albert P. Tibbets, George Washington University, 1910.
Elijah White Titus, George Washington University, 1910.

Dr. J. B. Nichols, for the Committee on By-Laws, presented a report embodying a set of By-laws for the government of the Society, and a set of model By-laws for the government of any sections that may be formed. The report was ordered to be printed in the ANNALS and considered in proper course. (See ANNALS for November.)

The committee had been instructed to consider the status of certain associate members who derive their membership in this Society by virtue of associate membership in the Medical Association of the District of Columbia, and who had been informed that they were no longer eligible for membership in the American Medical Association. The committee was of the opinion that their relation to the local organization was unchanged, but that the Society could not influence the action of the American Medical Association in the matter of their eligibility to membership in that body.

The committee reported for the guidance of the officers that the Constitution of the Medical Society of the District of Columbia, as existing prior to July 10, 1911, and the Regulations of the Medical Association of the District of Columbia, to which instruments are appended the signatures of those who had been members of those organizations, should be preserved in the archives of this Society, and that members elected to the present Society should be required to sign the Constitution now in force. The committee further recommended that the Historical Committee,

consisting of Drs. D. S. Lamb, C. W. Franzoni, R. T. Holden, G. Wythe Cook and L. Eliot, be revived and instructed to bring the history of the Medical Society down to date, to compile the history of the Medical Association of the District of Columbia, and to compile a complete roster of the memberships of the constituent organizations, and of the present Society, showing the names, ages, dates of admission, and other pertinent data. The report of the committee was adopted.

Dr. G. Wythe Cook stated that as the By-Laws proposed by the committee contained a system of ethics and a fee table, both of which are forbidden by the *charter* of the Medical Society, it seemed desirable to have that charter amended or repealed. He moved that the committee having charge of the matter during the last session of Congress be reappointed and instructed to renew the effort to have the charter amended and, if unable to secure the amendment, to have the charter repealed. So ordered.

The Chair announced the death of Dr. Henry A. Robbins, and appointed Drs. A. F. A. King, Arthur J. Hall and Frank E. Gibson a committee to report suitable resolutions of respect to his memory.

Dr. Nichols stated that the Constitution provides for the formation of certain sections. He moved, therefore, that the Executive Committee be instructed to fix the time and place for the organization of these sections, and to give notice thereof upon the program cards. So ordered.

Dr. A. R. Shands read a paper on the Diagnosis and Treatment of the early stage of Pott's Disease. Discussed by Drs. A. Behrend, Kinyoun, S. S. Adams, Williams and Shands.

Dr. W. W. Wilkinson reported a case of Profound Anaemia from toxemia of pregnancy, treated by transfusion. Discussed by Drs. Roy, Nichols, Fry, J. F. Anderson and Wilkinson. See page 375.

Wednesday, November 8.—The President, Dr. Barton, presided; about 60 members present.

The Committee on Amendment of the Charter was instructed to refuse consent to any proposed amendment which might interfere with the Constitution and By-Laws as they now stand.

Dr. G. Brown Miller reported two cases of Aberrant Axillary Mammae complicating the puerperal state. Discussed by Dr. Nichols.

Dr. Pfender read a paper entitled: Historical synopsis of the development of hypodermic medication. Dr. D. S. Lamb exhibited hypodermic syringes, from the collection at the Army Medical Museum, illustrating the paper. Discussion was participated in by Drs. Nichols and Isabel Haslup Lamb. See page 346.

Wednesday, November 15.—The President, Dr. Barton, presided; about 95 members present.

Dr. A. F. A. King, for the committee, reported resolutions of respect to the memory of Dr. Henry A. Robbins. The resolutions were adopted. See page 385.

The following resolution, adopted by the Society October 5, 1910, was referred to the Executive Committee: "That the Committee on Public Health be authorized to consider the problems involved in what is known as the Social evil and to report not later than October, 1911, what, if any, action this Society should take looking to the regulation or prevention of prostitution in the District of Columbia."

On motion of Dr. Cook, the price placed upon the History of the Society was reduced to one dollar per volume, and the Committee on Publication was instructed to publish this fact in the ANNALS.

Dr. Dabney read a paper entitled: Vaccine Therapy in diseases of the ear and nose. Discussed by Drs. McKimmie, W. P. Carr, C. W. Richardson, Hagner, Nichols, Randolph, Roy and Dabney. See page 325.

Dr. A. B. Hooe read a paper entitled: The present status of Abdominal Caesarean Section. Discussed by Drs. G. Brown Miller, I. S. Stone, Lochboehler, Carr, Sprigg, Willson and Hooe.

Wednesday, November 22.—The President, Dr. Barton, presided; about 95 members present.

The Corresponding Secretary read a letter from Dr. Frank Baker stating that Dr. Baker had been notified by the American Medical Association that his associate membership in this Society does not entitle him to membership in the national organization, and asking what steps he should take to relieve the situation. The matter was referred to the Executive Committee for consideration and recommendation.

On motion of Dr. S. S. Adams, a committee was appointed to arrange for a reception to Dr. A. Jacobi, January 10, 1912.

The Chair announced the death of Dr. Walter A. Wyman, Surgeon General of the Public Health and Marine Hospital Service, and an honorary member of this Society, and appointed Drs. H. L. E. Johnson, Manning and Vaughan a committee to report suitable resolutions of respect to his memory.

Dr. Werber read a paper entitled: The healing forces of nature in disease.. Discussed by Drs. Owen, Roy, Carr, E. L. Morgan, Williams and Werber. See page 359.

Dr. Tom A. Williams reported a series of cases showing the modern treatment of hysteria. See page 331.

Wednesday, November 29.—The President, Dr. Barton, presided; about 95 members present.

Dr. D. S. Lamb presented a report from the Committee on Publication, and asked for an appropriation of $175.16 for publication of the November number of the ANNALS, and 5,000 wrappers. The report was adopted and the appropriation granted.

Dr. Manning presented the report of the Committee on Memorial to the late Surgeon General Wyman, which was unanimously adopted. See page 386.

An appropriation was made of $379.13 for the expenses of the office of the Corresponding Secretary.

Dr. D. S. Lamb presented specimens of Hypertrophied Ova of Birds. See page 324.

Dr. T. A. Claytor read a paper entitled: The more common forms of cardiac irregularity. Illustrated by stereopticon reproductions of polygraphic tracings. Discussed by Drs. Lee, Roy, J. D. Thomas, Carr, Williams and Claytor.

Wednesday, December 6.—The President, Dr. Barton, presided; about 75 members present.

The chairman of the Executive Committee, Dr. McLaughlin, reported that as instructed the committee had considered the anomalous position of certain former associate members of the Medical Association of the District of Columbia created by the amalgamation of the Association with the Medical Society, by which amalgamation these gentlemen became associate members of this Society but ineligible for membership in the American Medical Association; the committee recommended as the best and most equitable solution of the difficulty that Drs. Frank Baker, R. F. Danforth, J. H. DeMerritt, R. A. Foster, Wm. R. Goodman, H. M. Harvey, G. F. Johnston, Jos. S. F. Sessford, W. C. Upham and Francis J. Woodman be admitted as active members of this Society. The report was accepted and the recommendation adopted.

The Treasurer presented his report for November showing: Receipts, $136.00; disbursed, $198.46.

The election of officers for 1912 being in order, the following were elected in the prescribed manner:

President, Dr. J. B. Nichols.
First Vice President, Dr. J. R. Wellington.
Second Vice President, Dr. W. Mercer Sprigg.
Recording Secretary, Dr. H. C. Macatee.
Corresponding Secretary, Dr. T. C. Smith.
Treasurer, Dr. C. W. Franzoni.

Executive Committee.—To serve one year, H. T. A. Lemon F. R. Hagner, John Van Rensselaer. To serve two years, Frank

Leech, G. N. Acker, Louis Mackall. To serve three years, D. K. Shute, T. N. McLaughlin, J. D. Thomas.

Delegate to the American Medical Association, Dr. G. Wythe Cook; Alternate, Dr. C. W. Richardson.

Wednesday, December 20.—The President, Dr. Barton, presided; about 100 members present.

Dr. Chas. W. Richardson presented a report from the Committee on Permanent Home for the Society, which was accepted and the committee continued. The recommendation that subscribing members be requested to continue their subscription pending further efforts was endorsed. See p. 389.

Dr. Barton, the retiring President, addressed the Society upon the "Tendency to Exaggeration and Complexity in Modern Medicine." See page 309.

A unanimous vote of thanks was given Dr. Barton for his faithful and efficient services as presiding officer during the term just ending.

The Society adjourned *sine die*.

WASHINGTON MEDICAL ANNALS.

Journal of the Medical Society of the District of Columbia.

Published Bimonthly by the Society, at No. 2114 Eighteenth Street, N. W., Washington, D. C. Subscription price, including postage, $1.00 per year, in advance. Single copies, 20 cents. Advertising rates given on application.

COMMITTEE ON PUBLICATION.

D. S. LAMB, A. M., M. D., *Chairman and Editor*, 2114 Eighteenth St., N. W.

Associate Editors.

B. G. POOL, M. D., ... 945 Rhode Island Avenue, N. W.
H. H. DONNALLY, M. D., A. M., B. S., . . 1612 I Street, N. W.
TRUMAN ABBE, A. B., M. D., ... Stoneleigh Court.
W. W. WILKINSON, M. D., ... The Rochambeau.

Editorial.

History of the Medical Society of the District of Columbia — This book should be in the hands of every member of the Medical Society. The price is only $1.00, with 25 cents added if delivered in this city or sent by mail. Address Dr. C. W. Franzoni, 605 I Street, N. W. The work contains, as the title indicates, a history of the Society, and a series of 929 biographical sketches of members. There are also 79 full-page photo-engravings of the places of meeting and of the members, besides several interesting tables and an appendix. The books are in the custody of Dr. D. S. Lamb, at the Army Medical Museum.

The new building of the Children's Hospital was formally opened on Thanksgiving day, November 30, 1911.

Dr. Homer S. Medford, a member of this Society, died December 16. A further notice will appear in the next number of the Annals.

Dr. George L. Rice, a member of the Massachusetts Medical Society, died at Salamanca, N. Y., November 23, 1911. Dr. Rice was a member of this Society from Nov. 15, 1864, to about 1874, when he removed to North Adams, Mass., where he practiced medicine until a short time before his death. He served as city postmaster and city physician, and was a member of the Board of Education of North Adams. For twenty-three years he was on the staff of the North Adams Hospital. A sketch of him appeared in the History of the Medical Society of this District, page 271, and a halftone portrait in group 20, facing page 73.

Dr. Chas. E. de M. Sajous, of Philadelphia, has been made the supervising editor of the *New York Medical Journal.*

The C. V. Mosby Medical Book and publishing Co., St. Louis, Mo., announces the publication of a book on Pellagra, by Dr. Stewart R. Roberts, of Atlanta, Ga.

Dr. Elnora Cuddeback Folkmar has been appointed local chairman for the District of Columbia for the Committee on Public Health Education among Women of the American Medical Association. Under the auspices of this committee over 2,800 lectures were given last year to over 230,000 persons. This year the committee is endeavoring to have all State and county medical societies appoint committees on public health to coöperate with the committee of the A. M. A. The State Medical Societies of Pennsylvania, Arkansas, Oklahoma, Michigan, New Jersey and Ohio have appointed such committees. In a number of States, even where action has not yet been taken by the State society, county medical societies have appointed committees. Ohio has 12 counties, New York 5, Pennsylvania 4, New Jersey 3, Connecticut, Florida, Michigan, Georgia, South Dakota, Oregon and California each 1. It is the duty of the Public Health Education Committee to seek opportunities for talks, to help arrange programs and to secure speakers.

The Other Medical Societies of the District of Columbia. —The program of the Medical History Club of Washington, D. C., for 1912, is as follows:

Jan. 27. History of Hemostasis, by Dr. W. C. Borden.
Feb. 24. History of Obsteterics, by Dr. I. S. Stone.
March. 30. Medicine in Lay Literature, by Dr. B. M. Randolph.
April 24. History of Opthalmology, by Dr. D. K. Shute.

This Society was organized three years ago and has a membership of about twenty-five. The officers are: President, Dr. C. W. Richardson; Vice President, Dr. B. M. Randolph; Secretary, Dr. H. W. Lawson, 1117 Vermont Ave.

The Hippocrates Society, the object of which is "the cultivation and promotion of knowledge in whatever relates to the science of medicine and surgery," holds meetings on the second Thursday of each month from October to May. The membership in this Society is limited to 25. The officers for the present season are: President, Dr. Thomas S. D. Grasty; Vice President, Dr. Wm. G. Young; Secretary-Treasurer, Dr. Laurence M. Hynson. Schedule of meetings for session of 1912:

Jan. 25. Annual Dinner. Invited Speaker.

Feb. 8, at Dr. Guy S. Saffold's, 1760 T St. Dr. W. H. Merrill.

Mar. 14, at Dr. Carl Henning's, The Rochambeau. D. J. D. Rogers.

April 11, at Dr. H. C. Macatee's, 2465 18th St. Dr. C. L. Davis.

May 9, at Dr. Wm. Cabell Moore's, The Wyoming. President's Address.

Society of Ophthalmologists and Otologists of Washington.—At the annual meeting held in May, 1911, Dr. S. B. Muncaster was elected President, Dr. Robert Scott Lamb, Vice President and Dr. A. B. Bennett, Secretary-Treasurer. The meetings are held on the third Friday in the month from October to May, inclusive.

The Clinical Society of Washington, which was organized in 1894, is composed of twenty-five active members, besides the retired members. An active member may become retired after ten years of active membership.

The officers are: Dr. C. M. Hammett, President; Dr. T. A. Groover, Vice President, and Dr. Wm. Earl Clark, Secretary-Treasurer. Censors: Drs. L. A. Johnson and J. D. Thomas.

The program for 1912 is as follows:

Feb. 12. Dr. W. J. Mallory, essayist; at Dr. Monte Griffith's, The Farragut. Discussion led by Dr. Sothoron Key.

March 11. Dr. J. D. Thomas, essayist; at Dr. A. B. Hooe's, 1220 16th St., N. W. Discussion led by Dr. Harry Hurtt.

April 8. Dr. W. M. Barton, essayist; at Dr. W. E. Clark's, The Rochambeau. Discussion led by Dr. J. B. Nichols.

May 13. Dr. L. A. Johnson, essayist; at Dr. H. H. Donnally's, 1612 Eye St., N. W. Discussion led by Dr. M. D'Arcy Magee.

Oct. 14. Dr. V. B. Jackson essayist; at Dr. T. A. Groover's, The Iroquois. Discussion led by Dr. D. W. Prentiss.

Nov. 11. Dr. A. B. Hooe, essayist; at Dr. Sothoron Key's, 1716 H St., N. W. Discussion led by Dr. L. H. Reichelderfer.

Dec. 9. Dr. F. L. Biscoe, essayist; at Dr. J. D. Thomas', 1716 M St., N. W. Discussion led by Dr. Monte Griffith.

The Women's Medical Society of the District of Columbia meets on the second Tuesday of each month from October to May, inclusive. The officers are Dr. Mary Parsons, President; Dr. Bordeau-Sisco, Vice President; Dr. Mary Holmes, Recording Secretary and Treasurer, and Dr. Martha M. B. Lyon, Corresponding Secretary.

The program for 1912 is as follows:

February at Dr. Ida J. Heiberger's, Dr. Ada Thomas, essayist; March at Dr. I. H. Lamb's, Dr. Sisco, essayist; April at Dr. Lyon's, Dr. E. C. Folkmar, essayist; May, business meeting, at Dr. Phoebe Norris'.

The Galen Society of the District of Columbia, 1912. Dr. H. J. Bryson, President; Dr. R. Lee Spire, Secretary-Treasurer.

January 22, 1912, at Dr. William J. Mallory's, 1720 Connecticut Ave.; Dr. E. T. Stephenson; Diagnosis and treatment of some of the common diseases of childhood.

February 19, at Dr. E. G. Seibert's, 1817 19th St., N. W.; Dr. William J. Mallory; Modern progress in dietetics.

March 18, at Dr. Hugh Nutting's, 1351 Newton St., N. W.; Dr. Carl Henning; The prognosis of ocular injuries.

April 22, at Dr. E. Comstock Wilson's, 11th and Mass Ave., N. E.; Dr. E. G. Seibert; Mastoid disease.

May 20, at Dr. E. P. Copeland's, The Rockingham; Dr. Charles A. Hyde; Tubercular meningitis with report of case.

October 21, at Dr. R. Lee Spire's, 1609 North Capitol Street; Election of Officers; Miscellaneous business.

The Clinico-Pathological Society was founded Mar. 23, 1888, and has had a continuous active existence ever since. The name was taken from an older society which had existed in Washington, and which had become extinct. The purpose of the Society, as stated in its Constitution, is the advancement of clinical and pathological research.

The founding of the present Clinico-Pathological Society furnishes one of the many instances of the interest taken in young men, and of the help afforded them by the late Dr. W. W. Johnston. It was at his suggestion and with his help that it was organized as distinctly a young men's society, it being provided that no one should be eligible to membership who had graduated before 1878. Dr. Johnston took a paternal interest in the Society, and gave freely to its members of his valuable counsel during the early days of its existence. He was the first to be elected an honorary member, and frequently attended its meetings.

The founders were Drs. Geo. W. Johnston, H. L. E. Johnson,

W. M. Sprigg, D. K. Shute, H. B. Deale, T. M. Bailey and Arthur Snowden. Dr. Geo. W. Johnston was the first president.

The active membership is limited to twenty-five. Inactive members are those who have withdrawn after an active membership of ten years or more. (This limit has recently been increased to fifteen years.) There is also a limited honorary membership, composed of distinguished medical men. Meetings are held on the first and third Tuesdays of each month from October to May inclusive. The standard of professional work of this Society has always been well maintained, and a number of important contributions to medical literature have been first presented at its meetings.

The officers for 1911–12 are: President, Dr. Wm. Gerry Morgan; Vice Presidents, Drs. Sothoron Key and E. E. Morse: Secretary and Treasurer, Dr. B. M. Randolph.

Program for 1912:

DATE.	PLACE OF MEETING.	ESSAYIST.	TO OPEN DISCUSSION.
Jan. 16.	Dr. Stavely, 1744 M st.	Dr. Kelley	Dr. Wellington
Feb. 6.	" Dunlop, 1712 22d St.	" Martin	" Hagner
Feb. 20.	" Clark, 1417 R. I. Ave.	" Wellington	" Kelley
March 5.	" Morse, 1716 M St.	" Wall	" Hardin
March 19.	" Lee, 1603 19th St.	" Hagner	" Stavely
April 2.	" Claytor, 1315 N H. Ave.	" Thomas	" Lee
April 16.	" Johnson, Cherrydale, Va.	" Russell	" Claytor
May 7.	To be specified.	Invited Guest.	
May 21.	" Morgan, 1417 R. I. Ave.	President's Address.	
Oct. 15.	" Parker, 1518 Conn. Ave.	Election of Officers.	
Nov. 5.	" Miller, 1730 K St.	Dr. Johnson	" Randolph
Nov. 19.	" Hagner, 1824 19th St.	" Parker	" Dunlop
Dec. 3.	" Key, 1716 H St.	" Kerr	" Miller
Dec. 17.	" Kerr, 1742 N St.	" Morse	" Parker

The Secretaries of the other Medical Societies of this District are reminded that the Annals will publish the schedules of their meetings for the coming season.

The Medical Society of Northern Virginia and the District of Columbia is composed of physicians of Alexandria, Fauquier, Fairfax, Loudoun and Prince William Counties, in Virginia, and the District of Columbia. At present it has about eighty-eight members. It meets twice annually, on the third Wednesday of May and November, alternately in Washington and at some point in Virginia. Its present officers are: Dr. F. M. Brooks, of Swetnam, president; Drs. E. L. Detwiler, of Herndon, and J. B. Nichols, of Washington, vice presidents; Dr. A. G. Coumbe, of Vienna, recording secretary; Dr. C. S. White, of Washington, corresponding secretary; and Dr. W. I. Robey, of Herndon, treasurer.

At its last meeting, held in Washington, November 15, 1911,

the program consisted of clinical presentations at the Emergency Hospital and of the following papers:

Indications for herniotomy in inguinal hernia. Dr. S. B. Moore, Alexandria.

Basilar headaches and neurasthenia of ocular origin not usually recognized. Dr. Oscar Wilkinson, Washington.

Chronic suppurative disease of the ear treated by non-surgical methods. Dr. W. A. Wells, Washington.

The next meeting of the Society will be held at Leesburg, May 15, 1912.

Department of Medicine, The George Washington University.—The Faculty of Medicine of the George Washington University during the past year has continued its policy to improve and systematize the teaching and the facilities of the Department for its students.

Improvements in the Medical Building.—The Department of Medicine has five fully equipped laboratories in which the teaching of Anatomy, Bacteriology and Pathology, Chemistry, Histology and Embryology and Physiology and Pharmacology are lodged. The necessity for increasing the work in purely medical chemistry has necessitated the establishment of a sixth laboratory for the special teaching of physiological and clinical chemistry. This laboratory is now nearly completed and will be ready for use at the opening of the second semester of the present year.

Improvements have been made in the other laboratories in the way of placing additional apparatus, etc. Nearly $1,000 have been expended in the Anatomical Laboratory in which a new terrazzo floor has been laid, the walls and lockers have been refinished and white enameled dissecting tables supplied. To render the teaching in Osteology satisfactory, a number of disarticulated skeletons have been purchased, and every student in osteology can now be furnished with and can take home with him every bone of the skeleton for study.

In addition to the improvements in the laboratories the interior of the medical building has been quite extensively painted and a new terrazzo floor has been laid in the main hall.

The Medical Library.—The medical library already contains about 3,000 volumes. During the past year the library has been carefully card-indexed so that its facilities are readily available to the students. New books are constantly being purchased and several of the best medical periodicals are subscribed for and are kept on the tables for reference.

The Museum.—The museum has been moved to a large well-lighted room and the specimens, to which additions are constantly being made, have been properly displayed on the shelves and in the cabinets.

Student Body.—During the past three years there has been a gratifying increase in the number of matriculants. Residents of Washington are well acquainted with the history of the University and the difficulties through which it passed immediately preceding the school year 1909–10. At that time the University was unsettled and confidence in it was shaken. The feeling prevalent during that year was reflected in the student attendance which was then much decreased. The matriculation has steadily increased since that time. This year it lacks but one of the number matriculated the year before the University depression.

Standing of Graduates at State Board Examinations.—The standing of students graduated in the last two years has been excellent and compares favorably with the medical schools in the United States having the highest standing. Of the graduates of the Class of 1910 examined in 1910 there were no failures.

Educational Position and Recognition.—The Medical Department of the University has for several years been a member of the Association of American Medical Colleges. Two years ago it was designated as a Class "A" school by the American Medical Association, and in the same year was given full credit by the Royal Medical Examining Boards of England, a recognition given to but 18 other medical schools in the United States. This year the Royal College of Physicians and the Royal College of Surgeons of England have determined to issue a diploma for Tropical Medicine to graduates of accredited schools who pass the required examination, and have notified the Medical Department that its graduates are eligible for entrance to this examination.

The University Hospital.—In regard to the hospital, it may be stated that improvements can be reported in all particulars connected with it.

During the past year two endowments of $10,000 each from the Woodbury and Tree Estates have been received and invested, and the income of these is now available toward the maintenance of charity patients in the open wards. In addition to this, Congress appropriated an additional $1,000 for maintenance of charity patients.

The very efficient and active Board of Lady Managers contributed $2,600, all of which was used toward the running expenses and improvements of the Hospital.

During the fiscal year ending August 31, 1911, improvements amounting to $2,837.54 and permanent equipment amounting to $1,078.33 were made or purchased.

These improvements consisted of repainting nearly the entire hospital and dispensary, inclosing the elevator at a cost of several hundred dollars, laying new floor covering of linoleum in all the halls, the tiling of the operating room, the anaesthetizing room and the sterilizing room floors and the placing of marble wain-

scoting in the operating room, the purchase of many new instruments and appliances, gas ranges, sterilizers, etc., and the making of minor improvements too numerous to mention.

The improvements made in the Hospital have been reflected in income. The Hospital receipts for the year ending Nov. 30, 1911, have been 40 per cent. above those of the corresponding preceding twelve months.

Altogether the condition of the Department of Medicine and the University Hospital may be stated to be satisfactory, and both are doing creditable work.

The Woman's Clinic of Washington has organized an Education Department for the dissemination of accurate information concerning the nature and prevention of disease and matters of vital interest to public health, and the means of rendering first aid in emergencies. The work of the department is under the charge of a special committee of which Dr. D. S. Lamb is chairman and Dr. Elnora Cuddeback Folkmar is secretary and executive officer. Over sixty physicians, surgeons, scientists and dentists are assisting in the work. The program of the department has been approved by the Committee on Public Health Education of the American Medical Association. In the conduct of the classes in First Aid the Clinic coöperates with the District Chapter of the Red Cross Association. The Board of Education of this District has endorsed the plan and lectures are given in public school buildings. Three lines of work have been begun—lectures to adults, class instruction, and the publication of articles on health topics in the Sunday issue of the *Washington Post*. During the months of November and December 28 lectures were given to audiences aggregating over 2,400 persons, one first aid class was organized and seven papers were published. A leaflet has been issued setting forth the purposes and plan of the work and giving the subjects of the lectures with the names of the lecturers.

The following is a list of lectures given in 1911:

Nov. 14. Nervousness in Children, its Cause and Prevention, by Dr. William H. Wilson; to the Deanwood Parents and Teachers Association.

Nov. 16. Coöperation of Teacher and Parent for the Health of the Child, by Dr. Ionia R. Whipper; to the Mothers' Meeting of the Sumner School.

Nov. 16. The Care of the Eyes, by Dr. Carl Henning; to the Parents' Association of the Garnett School.

Nov. 17. The Cause and Prevention of Nervousness in the Child, by Dr. Tom A. Williams; to a Mothers' Meeting of the Emery School.

Nov. 17. The Teeth in Relation to Health, by Dr. George E. Girard; to a Mothers' Meeting of the Hubbard School.

Nov. 17. The Care of the Eyes, by Dr. Michel O. Dumas; to a Mothers' Meeting of the Cardoza School.

Nov. 20. How to Tell to Children the Story of the Origin of Life, by Dr. Elnora C. Folkmar; to the students of Normal School No. 2.

Nov. 21. How to Tell the Story of the Origin of Life, by Dr. Folkmar; to a Mothers' Meeting of the Morse School.

Nov. 21. The Cause and Prevention of Nervousness in Children, by Dr. J. C. Tappan; to a Mothers' Meeting of the Brookland School.

Nov. 22. The Care of the Eyes, by Dr. Henning; to a meeting of the grammar grade teachers of the 10th, 11th, 12th and 13th Divisions and of the teachers of the Armstrong Manual Training School; at the M Street High School.

Nov. 25. The Red Cross and First Aid to the Injured, by Dr. L. H. Reichelderfer; to a regular meeting of the District Federation of Women's Clubs.

Nov. 27. Causes and Prevention of Nervousness in Children, by Dr. Tappan; to a Mothers' Meeting of the Thompson School.

Nov. 27. How to Tell to Children the Story of the Origin of Life (second lecture), by Dr. Folkmar; to the students of Normal No. 2.

Nov. 29. Three lectures were given at the M Street High School to the teachers below the grammar grades of the 10th, 11th, 12th and 13th Divisions: The Care of the Eyes, by Dr. Henning; The Teeth in Relation to Health, by Dr. Girard; Causes and Prevention of Nervousness in Children, by Dr. Tappan.

Dec. 1. The Structure and Functions of the Human Body, by Dr. D. S. Lamb; to a meeting of the Federation Class in First Aid at the Woman's Clinic rooms.

Dec. 4. The Hygiene of the Adolescent Girl, by Dr. Folkmar; to the students of Normal School No. 2.

Dec. 8. First Aid in Cases of Poisoning (General Treatment), by Dr. Charles I. Griffith; to a meeting of the Federation Class in First Aid; in the Public Library.

Dec. 8. Nervousness in Children, its Cause and Prevention, by Dr. Wilson; to a meeting of the Parents and Teachers Association of the Patterson School.

Dec. 11. Social Hygiene, by Dr. Folkmar; to the students of Normal School No. 2.

Dec. 15. First Aid in Cases of Poisoning, by Dr. Griffith; to a meeting of the Federation Class in First Aid; at the Public Library.

Dec. 15. The Care and Management of Nervousness in Children, by Dr. D. P. Hickling; to a meeting of the Mothers' Association of the Hubbard School.

Dec. 15. The Teeth in Relation to Health, by Dr. Girard; to a

meeting of the Eckington-Emery Parents and Teachers Association; at the United Brethren Sunday School House.

Dec. 18. Dress and Conduct of the Business Woman, by Dr. Folkmar; to the students of Normal School No. 2.

Dec. 19. Simple Treatments for the Common Diseases of Children, by Dr. Julia R. Hall; to a meeting of the Parents and Teachers Association of the Burrville School.

The following papers have been published:

Nov. 12. What to do in Cases of Poisoning; by Dr. W. H. Barton.

Nov. 19. How Colds are Caused and How Avoided; by Dr. Noble P. Barnes.

Dec. 3. Causes and Prevention of Nervousness; by Dr. Tom A. Williams.

Dec. 10. Care of Teeth Vital to Children; by Dr. Girard.

Dec. 17. The Red Cross in Times of Peace; by Major Charles Lynch, U. S. Army.

Dec. 24. Prevention of Fires, and First Aid in Burns; by Dr. Isabel H. Lamb.

Dec. 31. Some Dietetic Fallacies: What to Eat and Why; by Dr. William J. Mallory.

Recent Publications of Physicians of the District of Columbia.

H. A. Brown; "Monthly mortality in the registration area;" *N. Y. Med. Jour.*, Nov. 11, 1911.

C. F. Craig, U. S. Army; "Complement fixation test in diagnosis of syphilis in military service; analysis of 3,950 tests;" *Jour. Infect. Dis.*, Nov. 9, 1911.

A. M. Curtis; "President's address before the National Medical Association;" *Jour. N. M. A.*, Oct.–Dec., 1911, page 299.

C. R. Darnall, U. S. Army; "Purification of water by anhydrous chlorine;" *Jour. Amer. Pub. Hlth. Assn.*, Nov. 1, 1911.

N. J. Dynan; "Case of dural endothelioma involving frontal lobe;" *N. Y. Med. Jour.*, Nov. 4, 1911.

W. H. Frost; "Origin and prevalence of typhoid fever in Fort Smith, Ark.;" Reprint from Public Health Reports, No. 67.

H. A. Giltner, Asst. Surg., U. S. Navy; "Verruca peruana or Carrion's Disease;" *Jour. A. M. A.*, Dec. 23, 1911, page 2074.

A. B. Hooe; "Ileus;" *Va. Med. Semi-Mo.*, Nov. 24, 1911, page 402.

H. W. Kearney; "Consideration of nitrous oxide with oxygen as an anesthetic in general surgery;" *N. Y. Med. Jour.*, Dec. 9, 1911; Prize essay read before the George Washington University Med. Society, 1911.

G. R. Lafora; "Obscure symptomatology with tumors of fourth ventricle;" *N. Y. Med. Jour.,* Nov. 18, 1911.

C. H. Lavinder; "Salient epidemiologic features of pellagra;" *New Mexico Med. Jour.,* Nov., 1911.

Clara L. Lord, Trained Nurse; "Recipes compiled." See review in *Buffalo Med. Jour.,* Dec., 1911.

L. L. Lumsden; "Coöperation as a factor in the prevention of typhoid;" *Ohio State Med. Jour.,* Nov., 1911.

E. P. Magruder; "Volvulus;" *Surg. Gynec., and Obstet.,* Dec., 1911. "Operative treatment of fractures;" *N. Y. Med. Jour.,* Dec. 23, 1911; abstracted in *Jour. A. M. A.,* Jan. 8, 1912, page 64.

B. M. Randolph; "Nomenclature of poliomyelitis" (acute infectious paralysis); *N. Y. Med. Jour.,* Dec. 9, 1911.

C. W. Richardson; "Case of rarefying osteitis of mastoid bone;" *Annals Otol., Rhinol. and Laryngol.,* Sept., 1911.

P. S. Roy; "Vicious circles in disease;" *Va. Med. Semi-Mo.,* Dec. 22, 1911, page 449.

J. W. Schereschewsky; "Antityphoid vaccination;" reprint from Public Health Reports, No. 66, 1911.

R. W. Shufeldt; "The need of parental enlightenment in the mentality and physical organization of children;" *Pacific Med. Jour.,* Dec., 1911, page 722.

A. M. Stimson; "Rabies;" *Chicago Med. Recorder,* Nov. 15, 1911.

G. T. Vaughan; "Cyst of appendix;" abstracted in *Jour. Med. Soc., N. J.,* Dec., 1911, page 366.

E. B. Vedder, U. S. Army; "What are the best available measures to diminish venereal diseases among soldiers;" *Military Surgeon,* Nov., 1911. Prize essay.

J. R. Verbrycke; "Benzidine test for occult blood in stool;" *Wash. Med. Annals,* Nov., 1911; abstracted in *Jour. A. M. A.,* Dec. 16, 1911, page 2026.

Ralph Walsh; "Walsh's Physician's Handy Ledger;" 12th edition; price $3.50. Also "Walsh's Physician's Combined Call Book and Tablet."

W. D. Webb; "Large multiple prostatic calculi as a late result of perineal prostatectomy;" *Jour. A. M. A.,* Dec. 23, 1911, page 2082.

W. A. Wells; "Relation de trois cas de polypus fibreux du Naso-pharynx;" *Arch. Internat. Laryng. &c., Paris.*

W. A. White; "Dementia precox;" *Archives of Diagnosis,* October, 1911.

H. W. Wiley; "Bromatotherapy;" *Mo. Cyclop. and Med. Bull.,* November, 1911.

T. A. Williams; "Psychotherapy in the case of psychasthenia which tends towards inebriety;" *Va. Med. Semi-Mo.,* Nov. 24, 1911, page 410; abstracted from *Med. Record, N. Y.,* Oct. 28.

See also *Medical Record, N. Y.,* Nov. 4, 1911. Also "Convenient instrument for ready clinical investigation of sensibility to coolness and warmth;" *Med. Record., N. Y.,* Dec. 9, 1911. Also "Radical removal of conditions causing arterial changes leading to non-psychogenic disturbances of the nervous system;" *Mo. Cyclop. and Med. Bull.,* Nov., 1911, page 651. Also "Differential diagnosis of cases with affections apt to be mistaken for cerebral tumor;" *Archives of Diagnosis,* Oct., 1911; *West Va. Med. Jour.,* Dec., 1911, page 194. Also "The psychological basis of inebriety; its aetiological and social factors; remedies;" Senate Document No. 48, 1911. Also with Dr. John Dunlop; "Adiposis pituitary syndrome of Lanois with narcoleptic fits, but without genito-urinary symptoms;" *Jour. A. M. A.,* Jan. 13, 1912, page 106.

B. L. Wright, U. S. Navy; "Treatment of tuberculosis and other diseases of vegetable parasitic origin by deep muscular injections of mercuric succinamide;" *Med. Record, N. Y.,* Dec., 1911; abstracted in *Jour. A. M. A.,* Dec. 16, page 2023.

PERSONAL NOTES.

Dr. Mahlon Ashford, Captain Medical Corps, U. S. A., and formerly a member of this Society, was married December 20, 1911, to Miss Elizabeth Beale of this city.

Dr. Rupert Blue has been appointed Surgeon General of the Bureau of Public Health and Marine Hospital Service.

Drs. Balloch, Bovée and Moran attended the meeting of the Southern Surgical and Gynecological Association in Washington December 12 to 14, and took part in the proceedings. Dr. W. P. Carr also attended and was elected Vice President of the Association.

Dr. Chas. R. Collins, 1641 K St. N. W., announces to the profession that he is equipped with all modern appliances for the treatment of disease where electro-therapeutics is indicated.

Dr. W. D. Crosby, Lieut. Col. Medical Corps, U. S. A., has been given leave of absence for two months, and his duties at the old Soldiers' Home in this city are temporarily given to Dr. P. C. Fauntleroy, Major Medical Corps, U. S. A.

Dr. W. G. Farwell, Passed Asst. Surg., U. S. N., has been detached from the Nebraska, and ordered to the Navy Yard, Washington.

Dr. T. M. Foley, M. R. C., U. S. A., has been ordered to Fort McIntosh, Texas, for duty.

Dr. John M. Francis, DD. S., has been appointed a Dental Examiner in the public schools of this city.

Dr. J. K. P. Gleeson has been elected Commander of Burnside Post, G. A. R.

Dr. W. B. Hudson has been appointed to the Medical Reserve Corps, U. S. A.

Dr. H. L. E. Johnson has been elected Governor of the Society of Colonial Wars, this city, and Dr. G. T. Vaughan, Surgeon. Dr. Johnson has also been elected President of the Sons of the Revolution in this city.

Dr. D. S. Lamb has been appointed a member of the Committee on Exhibit of the A. M. A.

Dr. Harry S. Lewis has been appointed Superintendent of the Emergency Hospital, dating from January 1, in place of Dr. E. P. Magruder, resigned.

Dr. Edgar A. Mearns, Lieut. Col. Medical Corps, U. S. A., Retired, Associate Zoölogist U. S. National Museum, and who accompanied the Smithsonian expedition to Africa, has been attached to the Childs-Frick Abyssinian expedition. He will have charge of the bird collection.

Dr. J. B. Nichols has been appointed a member of the Board of Medical Examiners of this District, in place of Dr. J. S. Wall, resigned.

Dr. H. P. A. Shaw, Surgeon, U. S. Navy, has been detached from the Navy Yard, Washington, and ordered to the Montauk.

Drs. C. W. Stiles and Chas. R. Craig, attended and took part in the 5th annual meeting of the Southern Medical Association at Hattiesburg, Miss., November 14 to 16, 1911.

Dr. Cressy L. Wilbur was elected President of the American Association for the Study and Prevention of Infant Mortality at the Second Annual Meeting in Chicago, Nov. 16 to 19, 1911.

Dr. Harvey W. Wiley addressed the Cranford (N. J.) Town Improvement Society Nov. 13, and the Legion of Loyal Women, this city, Nov. 20.

Dr. W. C. Woodward was reëlected Secretary of the American Public Health Association at the meeting in Havana, Cuba, Dec. 4 to 9, 1911.

The Medical Society of the District of Columbia.

Officers for 1912.

President, ... J. B. Nichols.
1st Vice-President, ... J. R. Wellington.
2d Vice-President, ... W. M. Sprigg.
Recording Secretary, ... H. C. Macatee.
Corresponding Secretary, ... Thomas C. Smith.
Treasurer, ... Chas. W. Franzoni.
Delegate to House of Delegates, American Medical Association, G. Wythe Cook.
Alternate, C. W. Richardson.
Vice-President of Washington Academy of Sciences, J. B. Nichols.

Standing Committees for 1912.

Executive Committee.—*To serve one year.*—H. T. A. Lemon, *Secretary*, F. R. Hagner, John Van Rensselaer.
To serve two years.—Frank Leech, G. N. Acker, Louis Mackall.
To serve three years.—D. K. Shute, T. N. McLaughlin, J. D. Thomas.
Also *ex officio.*—E. A. Balloch, T. C. Smith, D. S. Lamb, J. B. Nichols, C. W. Franzoni, G. Wythe Cook, *Chairman*, C. M. Hammett.
Committee of Censors.—E. A. Balloch, L. A. Johnson, G. B. Miller, L. H. Reichelderfer, Ada R. Thomas.
Committee on Program.—T. C. Smith, W. C. Borden, C. S. White, P. S. Roy, W. A. Wells.
Committee on Publication.—D. S. Lamb, B. G. Pool, H. H. Donnally, Truman Abbe, W. W. Wilkinson.

Members.*

Abbe, Truman, *A. B.*,	Stoneleigh Court.
Acker, George Nicholas, *A. M.*,	913 16th street, n. w.
Adams, J. Lee,	Takoma Park.
Adams, Roy Delaplaine,	Stoneleigh Court.
Adams, Samuel Shugert, *A. M.*,	1 Dupont Circle.
Allen, Chas. Walker,	941 New York avenue, n. w.
Allen, Elzora Butler,	1371 Pennsylvania avenue, s. e.
Allen, John,	1371 Pennsylvania avenue, s. e.
Ammerman, Chas. Clark,	2314 18th street, n. w.
Anderson, Charles Loftus Grant,	The Damariscotta.
Armstrong, William John,	1629 Connecticut avenue, n. w.
Arnold, John Sheridan,	24 2d street, n. e.
Atkinson, Wade Hampton,	1402 M street, n. w.
Avery, F. Scott,	2913 P street, n. w.
Baier, Geo. Kasper, *LL. B.*,	917 I street, n. w.
Bailey, Grafton D. P.,	223 4½ street, n. w.
Bain, Seneca Bray, *D. D. S.*,	1301 Fairmont street, n. w.
Baker, Frank,	1788 Columbia Road.
Baker, Robert W.,	1816 I street, n. w.
Balloch, Edward Arthur, *A. M.*,	1511 Rhode Island ave., n. w.
Barber, James Morgan,	918 E street, n. w.
Barber, R. T. J.,	107 Rhode Island avenue, n. w.
Barker, Howard,	1116 H street, n. w.

*Members are requested to report errors in name or address and changes of address to the Committee on Publication, Corresponding Secretary, and Treasurer.

Barnes, Noble Price, 208 Maryland avenue, n. e.
Barnhart, Grant S., 916 Massachusetts avenue, n. w.
Barry, Edmund, 201 East Capitol street.
Barton, Wilfred Mason, 1730 Connecticut avenue, n. w.
Bartsch-Dunne, Anna, Ridgway, Pa.
Battle, Lewis Junius, *Ph. B.*, 2811 14th street, n. w.
Bayne, J. Breckinridge, 1141 Connecticut avenue, n. w.
Beale, Robert Somervell, 1318 19th street, n. w.
Beall, Benjamin M., 417 H street, n. e.
Beall, Charles Middleton, 2715 14th street, n. w.
Beatty, Louis Kelly, 610 East Capitol street.
Behrend, Adajah, 1214 K street, n. w.
Behrend, Edwin Bernhard, *A. B.*, 1214 K street, n. w.
Bennett, Adolphus Bogardus, Jr., The Farragut.
Bermann, Isador Samuel Leopold, 2341 18th street, n. w.
Biggs, J. Rosier, 1005 Virginia avenue, s. w.
Billard, Chas. Louis, The Ethelhurst.
Birtwell, Daniel Thos., 1325 Columbia Road, n. w.
Biscoe, Frank Lee, The Farragut.
Bishop, Francis Besant, 1913 I street, n. w.
Blake, Louisa Miller, 40 Rhode Island avenue, n. w.
Blakistone, Julian C., The Farragut.
Bogan, Joseph B., 606 Massachusetts avenue, n. w.
Bogan, Saml. Wm., The Laclede.
Borden, Wm. Cline, 1801 California avenue, n. w.
Boswell, Archie Ward, 928 Maryland avenue, n. e.
Bovée, John Wesley, The Rochambeau.
Bowen, William Sinclair, Stoneleigh Court.
Bowers, John E., 907 M street, n. w.
Bowker, Chas. H., The De Soto.
Boyd, George Washington, *Phar. D.*, 121 2d street, n. e.
Brackett, John Ely, 1310 Rhode Island avenue, n. w.
Braden, Frank W., 904 East Capitol street.
Bradfield, Jefferson Davis, *Phar. L.*, 1506 North Capitol street.
Brady, Zadoc M., Kenilworth, D. C.
Brandenburg, Wilbur H. R., 1101 14th street, n. w.
Brecht, Nelson DuVal, 609 22d street, n. w.
Briggs, John Bradford, Jr., *B. S.*, 1628 K street, n. w.
Briscoe, John Parran, 1213 Connecticut avenue, n. w.
Bromwell, Josiah Robson, 1147 Connecticut avenue, n. w.
Brooks, Floyd Vernon, Bond Building.
Brooks, J. Lester, 221 Bond Building.
Brown, Charles W., 1411 K street, n. w.
Brumbaugh, Gaius Marcus, *M. S.*, 905 Mass. avenue, n. w.
Bryan, Joseph Hammond, 818 17th street, n. w.
Bryson, Herbert J., 714 12th street, n. e.
Buck, John R., 1646 Irving street, n. w.
Burch, Edward Warren, 336 Maryland avenue, n. e.
Burch, W. T., 1627 Connecticut avenue, n. w.
Butler, William Kennedy, *A. M.*, 1207 M street, n. w.
Butz, A. D., 428 8th street, s. e.
Byrns, William Francis, *A. M.*, 1923 Calvert street, n. w.
Cabell, Julian May, 1730 M street, n. w.
Camp, George H., 506 Seward square, s. e.
Carmichael, Randolph Bryan, 818 17th street, n. w.
Carr, William Phillips, 1418 L street, n. w.
Carrico, Albert Joseph, 2903 14th street, n. w.
Chadwick, DeWitt Clinton, The Burlington.
Chamberlin, Frank Tenney, 1323 M street, n. w.
Chappell, John Wm., *B. S.*, 3901 Grant Road, Tenleytown, D. C.

Chipman, Cline N., 629 G street, s. w.
Chisolm, Francis M., The Farragut.
Christmas, Wm. W., 725 12th street, n. w.
Clark, George C., 321 East Capitol street.
Clark, Wm. Earl, The Rochambeau.
Claytor, Thomas Ash, 1315 New Hampshire avenue, n. w.
Cole, Geo. Robt. Lee, *Phar. D.*, 418 7th street, s. w.
Cole, John Thos., 820 H street, n. e.
Collins, Charles Read, 1641 K street, n. w.
Conklin, Coursen B., 1342 R street, n. w.
Constas, John, 1111 Massachusetts avenue, n. w.
Cook, George Wythe, *LL. D.*, 3 Thomas Circle.
Cook, Henry Churchill, 2477 18th street, n. w.
Cook, Richard Lloyd, 3 Thomas Circle.
Copeland, Edgar P., The Rockingham.
Corey, George Boaz, 1351 Parkwood street, n. w.
Corley, Karl Coates, 1787 Columbia Road, n. w.
Coumbe, Oscar Henry, 248 Delaware avenue, n. e.
Cox, S. Clifford, 2018 I street, n. w.
Crook, Harrison, The Sherman.
Crosson, Henry Joseph, 1746 M street, n. w.
Cummiskey, Edward F., 1342 U street, n. w.
Cuthbert, Middleton Fuller, 1462 Rhode Island avenue, n. w.
Dabney, Virginius, 1633 Connecticut avenue, n. w.
Danforth, R. F., Navy Yard.
Darnall, M. Hubbard, Fort Washington, Md.
Davidson, Edward Y., 512 East Capitol street.
Davis, Carl Lawrence, 1355 Harvard street, n. w.
Deale, Henry Buckmaster, *A. M.*, 1824 Jefferson place, n. w.
Deeble, Horace M., The Astoria.
De Merritt, John H., 1335 Vermont avenue, n. w.
De Weese, Cornelius, The Farragut.
Digges, J. H., 805 First street, n. w.
Dillenback, William J., 1344 R street, n. w.
Dixon, Henry Marshall, 2013 I street, n. w.
Dixon, Taylor Boyd, 1516 R street, n. w.
Dollman, Clarence M., The Willson.
Donnally, Harry Hampton, *A. M., B. S.*, 1612 I street, n. w.
Dooley, F. X., 1346 T street, n. w.
Douglas, James F., 634 East Capitol street.
Dowling, Thos., 1419 Clifton street, n. w.
Duffey, Hugh Clarence, 929 O street, n. w.
Dufour, Clarence Ruter, *Phar. D.*, 1343 L street, n. w.
Dulaney, Joshua Lambert, 926 I street, n. w.
Dunlop, John, *B. S.*, 1217 Connecticut avenue, n. w.
Dunnigan, John P., 220 B street, s. e.
Dye, Hobart Southworth, 1327 L street, n. w.
Ecker, Lewis C., 1217 Connecticut avenue, n. w.
Edmunds, Meade R., The Burlington.
Egbert, Edward Homer, The Rochambeau.
Eliot, Johnson, 720 H street, n. e.
Eliot, Llewellin, *A. M.*, 1106 P street, n. w.
Elliott, Henry Randall, Jr., The Farragut.
Ellyson, Robert Maitland, 1120 13th street, n. w.
Emmons, Charles M., *LL. M.*, 1100 Pennsylvania avenue, s. e.
Erbach, Amelia, 709 East Capitol street.
Erving, Emma Lootz, *A. B.*, 922 17th street, n. w.
Erving, William Gage, *A. B.*, 922 17th street, n. w.
Evans, Warwick, 1105 9th street, n. w.
Farquhar, R. R., 202 Bates street, n. w.

Ferguson, Charles Emory,	1648 North Capitol street.
Fillebrown, John Potts, *M. E.*,	Stoneleigh Court.
Finley, Clara Bliss,	Rockville, Md.
Fisher, Howard, *A. M.*,	The Mendota.
Fisher, Raymond Adams,	505 B street, n. e.
Floria, Salvatore,	732 Longfellow street.
Flynn, James Augustin,	1333 Q street, n. w.
Folkmar, Elnora Cuddeback,	1839 Ontario place.
Foote, John A.,	1716 M street, n. w.
Foster, Romulus A.,	2207 Massachusetts avenue, n. w.
Fowler, Henry Atwood, *B. S.*,	The Cumberland.
Fowler, William Chas.,	1812 1st street, n. w.
Fox, William Henry, *A. M.*,	1826 Jefferson Place.
Foye, Amelia Frances,	1118 13th street, n. w.
Frankland, Walter Ashby,	The Champlain.
Franklin, Edmund T. M.,	1315 19th street, n. w.
Franzoni, Charles William, *Ph. B.*,	605 I street, n. w.
Fremont-Smith, Frank, *A. B.*,	1808 Massachusetts ave., n. w.
French, William J.,	1742 18th street, n. w.
Friedrich, Leon Leigh,	329 East Capitol street.
Frischkorn, R. W.,	1242 Newton street, n. e.
Fry, Henry Davidson, *Sc. D.*,	1929 19th street, n. w.
Fuller, Homer G., *Ph. B.*,	The Farragut.
Gannon, James A.,	1219 Connecticut avenue, n. w.
Garnett, A. Y. P.,	1219 Connecticut avenue, n. w.
Garrison, Fielding H.,	2532 13th street, n. w.
Gibson, Frank Eugene,	927 I street, n. w.
Gill, William T.,	442 M street, n. w.
Gillette, Hubbard,	1930 8th street, n. w.
Glazebrook, Larkin White,	2022 P street, n. w.
Gleeson, James Knox Polk,	1451 Harvard street, n. w.
Goodman, Wm. R.,	1332 12th street, n. w.
Graham, Neil Duncan,	The New Berne.
Graham, Neil Ferguson,	909 New York avenue, n. w.
Grasty, Thomas Sanford Dunaway,	1273 N. H. avenue, n. w.
Greene, Lewis S.,	1610 I street, n. w.
Greene, Samuel H., Jr.,	1320 Q street, n. w.
Greene, Willard P.,	648 East Capitol street.
Griffith, Chas. I.,	1371 Monroe street, n. w.
Griffith, Monte, *Phar. D.*,	The Farragut.
Groff, Chester C.,	1107 I street, n. w.
Groover, Thomas Allen,	The Iroquois.
Gunion, John Paul,	927 O street, n. w.
Gunnell, F. M.,	600 20th street, n. w.
Gunning, Edward J.,	The Kingman.
Gwynn, William Clarence,	1514 30th street, n. w.
Haas, Carlton D.,	3018 13th street, n. w.
Hagner, Chas. Evelyn,	1824 19th street, n. w.
Hagner, Francis Randall,	The Farragut.
Hall, Arthur Joseph,	2819 14th street, n. w.
Hamilton, Ralph Alexander,	924 15th street, n. w.
Hammett, Chas. Massey,	1330 I street, n. w.
Hammond, Thos. Victor,	1713 H street, n. w.
Hardin, Bernard Lauriston, *B. S.*,	1311 Conn. avenue, n. w.
Harding, Harry Theodore,	1483 Columbia Road, n. w.
Harrington, Francis Edward,	1106 P street, n. w.
Harrison, Bernard Hooe,	The Home.
Hart, James W.,	2156 F street, n. w.
Harvey, H. M.,	2548 14th street, n. w.
Hasbrouck, Edwin Marble,	1819 Adams Mill Road.

Hazen, Henry H., 1204 18th street, n. w.
Hazen, W. P. C., 511 East Capitol street.
Heflebower, Roy C., 915 New Hampshire avenue, n. w.
Heiberger, Ida Johanna, The Concord.
Heinecke, George Burton, Georgia ave. and Madison st., n. w.
Heitmuller, Geo. H., *A. B.*, 1333 N street, n. w.
Heller, Joseph Milton, The Marlborough.
Hemler, Wm. F., 706 8th street, n. w.
Henderson, George, The Denver.
Henning, Carl, The Rochambeau.
Hickling, Daniel Percy, 1304 Rhode Island avenue, n. w.
Hilton, James Franklin, 1407 W street, n. w.
Hodges, John Walter, 1667 Monroe street, n. w.
Holden, Raymond Thos., 802 6th street, s. w.
Holland, Josiah Hutton, *Phar. D.*, The Burlington.
Holmes, Mary, 227 1st street, n. e.
Hooe, A. Barnes, 1220 16th street, n. w.
Hooe, Robert Arthur, 14th and Girard streets, n. w.
Hough, William Hite, *Phar. D.*, St. Elizabeth Asylum.
Howard, Stanton Wren, The Gotham.
Hume, Howard, 1344 19th street, n. w.
Hummer, Harry Reid, Canton, S. D.
Hunt, Arthur LeRoy, *A. B.*, The Burlington.
Hunter, Edwin Clarence, 107 4th street, n. e.
Hunter, Montgomery, 1728 P street, n. w.
Hurtt, Harry, 1710 H street, n. w.
Hyatt, Franck, The Rochambeau.
Hyde, Chas. Wilbur, The Plymouth.
Hynson, Lawrence Maxwell, 1335 N street, n. w.
Ingersoll, R. S., Takoma Park, Md.
Jack, William Alexander, Jr., 1423 T street, n. w.
Jackson, Virgil B., The Brunswick.
Jenner, Norman Richards, 1110 Rhode Island avenue, n. w.
Johnson, Albert Eugene, 117 B street, s. e.
Johnson, Henry Lowry Emilius, 1821 Jefferson Place, n. w.
Johnson, Joseph Taber, *A. M., Ph. D.*, 926 Farragut Square.
Johnson, Loren Bascom Taber, 1211 Connecticut avenue, n. w.
Johnson, Louis Alward, 711 C street, s. w.
Johnson, Stuart C., 1133 Girard street, n. w.
Johnston, Gabriel F., 1915 Calvert street, n. w.
Johnston, Henry V., 1324 Monroe street, n. w.
Johnston, Wm. Bernard, 1311 Connecticut avenue, n. w.
Jones, Edward B., 1217 Connecticut avenue, n. w.
Jones, Thos. Glenn, 228 1st street, s. e.
Jung, Franz August Richard, 1229 Connecticut avenue, n. w.
Jung, Sofie Amalie Nordhoff, 1229 Connecticut avenue, n. w.
Junghans, John Henry, *A. M.*, 417 D street, n. e.
Karpeles, Simon Rufus, 1102 5th street, n. w.
Kaufman, Harry Marx, The Burlington.
Kaveney, Joseph J., The Elkton.
Kearney, Henry W., 1221 O street, n. w.
Kebler, Lyman Frederick, 1322 Park Road.
Keith, Emma Corey Starr, 160 Tennessee avenue, n. e.
Kelley, John Thomas, Jr., 1312 15th street, n. w.
Kemble, Adam, *Phar. D.*, The Cecil.
Kemp, Thos. June, 433 G street, n. w.
Kerr, Henry Hyland, *C. M.*, 1742 N street, n. w.
Key, Sothoron, *M. S.*, 1716 H street, n. w.
Keyser, Carl Schurz, 1218 19th street, n. w.
Kilroy, James J., 103 I street, n. w.

Kimball, Arthur Herbert, *B. S., A. M.*, The Burlington.
King, Albert Freeman Africanus, *A. M., LL. D.*, 1315 Massachusetts avenue, n. w.
King, Ernest Frothingham, *A. M.*, Bond Building.
Kinyoun, Joseph James, 1423 Clifton street, n. w.
Knight, Carlisle P., 941 New York avenue, n. w.
Kober, George Martin, *LL. D.*, 1819 Q street, n. w.
Kolipinski, Louis, *Phar. D.*, 631 1 street, n. w.
Koones, Charles Kneller, 20 Iowa Circle, n. w.
Korshet, Morris, 31 Lucile Place, Passaic, N. J.
Kramer, Thomas Best, 634 A street, s. e.
Kurtz, John, *Ph. B.*, 3142 P street, n. w.
Lamb, Daniel Smith, *A. M.*, 2114 18th street, n. w.
Lamb, Isabel Haslup, 2114 18th street, n. w.
Lamb, Robert Scott, The Cecil.
Lawrence, Albert Lynch, *Phar. D.*, 1330 Mass. ave., n. w.
Lawson, Huron Willis, 1117 Vermont avenue, n. w.
Lee, Thos. A., 316 4½ street, s. w.
Lee, Thomas Sim, *A. B.*, Stoneleigh Court.
Leech, Daniel Olin, 1237 Massachusetts avenue, n. w.
Leech, Frank, 1372 Columbia Road.
Lehr, Louis Chas., *A. B.*, 2033 Florida avenue, n. w.
LeMerle, Eugene Lyman, 2011 Q street, n. w.
Lemon, Hanson Thos. Asbury, 903 M street, n. w.
Lewis, Duff Green, *A. B.*, 1311 14th street, n. w.
Lewis, Samuel Edwin, 1418 14th street, n. w.
Linville, Thos., 905 10th street, n. w.
Little, Joseph W., 1313 14th street, n. w.
Little, Richard Mitchell, 1213 East Capitol street.
Littlepage, Wm. Houston, The Alabama.
Lochboehler, George John, *Phar. D.*, 55 K street, n. w.
Logie, Benjamin Rush, 1792 Columbia Road, n. w.
Loring, Frank Boot, 1420 K street, n. w.
Lowe, Thomas F., 205 H street, n. w.
Luce, Charles Roscoe, 215 2d street, s. e.
Luckett, L. Fleet, 1419 Rhode Island avenue, n. w.
Lynch, Robert L., 2930 14th street, n. w.
Lyon, Martha M. Brewer, 48 V street, n. w.
McAdory, R. J., Bouse, Arizona.
McArdle, Thomas Eugene, *A. M.*, 1826 Columbia Road.
McCormick, John Henry, 1006 Selma street, Mobile, Ala.
McDonald, P. E., Naval Dispensary.
McGuire, James Clark, *A. M.*, Cosmos Club.
McKaig, Joseph Francis, *A. B.*, 3122 18th street, n. w.
McKay, James George, The Oakland.
McKee, Wm. P., 1634 S street, n. w.
McKimmie, Oscar Addison Mack, The Valois.
McLaughlin, Thomas Notley, 1226 N street, n. w.
McLaughlin, Wm. F., The Farragut.
McNally, Valentine, *A. M., LL. D.*, 1417 N street, n. w.
MacNamee, Arthur M., 409 B street, n. e.
McPherson, Dorsey Mahon, 1810 15th street, n. w.
McQuillon, Francis, 204 Pennsylvania avenue, s. e.
Macatee, Henry Cook, 2465 18th street, n. w.
Machen, Francis Stanislaus, 3141 Mt. Pleasant street, n. w.
Mackall, Louis, 3044 O street, n. w.
Madison, Benjamin Franklin, 417 B street, s. e.
Magee, George H., 604 H street, n. e.
Magee, Michael, D'Arcy, *A. M.*, 1623 Conn. avenue, n. w.
Magruder, Ernest Pendleton, *A. M.*, The Farragut.

Magruder, George Lloyd, *A. M.*, Stoneleigh Court.
Mallan, Thomas Francis, 820 Connecticut avenue, n. w.
Mallory, Wm. J., 1720 Connecticut avenue, n. w.
Malone, Wilson Prestman, The Farragut.
Manning, Wm. J., The Alabama.
Marbury, Charles Clagett, *A. B.*, 1015 16th street, n. w.
Marshall, Collins, 2507 Pennsylvania avenue, n. w.
Marshall, James Widgery, 1204 Mass. avenue, n. w.
Martin, Thos. Chas., 1725 N street, n. w.
Martyn, Herbert Edward, 614 East Capitol street.
Mason, Elijah Lumbia, The Portner.
Mason, Robert French, The Toronto.
Mason, Wm. Beverly, 1217 Connecticut avenue, n. w.
Masterson, Wm. Lincoln, Stoneleigh Court.
Mazzei, Francis Anthony, 2 T street, n. e.
Mead, Theodore, 928 23d street, n. w.
Merriam, Arthur Carlos, 1726 Park Road, n. w.
Merrill, Walter Hibbard, *B. L.*, The Northumberland.
Mess, Wm. A., 459 G street, n. w.
Metzerott, John Hitz, 1110 F street, n. w.
Miller, Gideon Brown, *B. Sc., C. E.*, 1730 K street, n. w.
Miller, Maurice Erwin, 1618 H street, n. w.
Miller, Thomas, 1616 7th street, n. w.
Miner, Francis H., 300 East Capitol street.
Mitchell, James Farnandis, *A. B.*, 1344 19th street, n. w.
Mitchell, Joseph Ernest, The Iroquois.
Moore, Mead, The Wyoming.
Moore, Seth Eas'man, 1706 Rhode Island avenue, n. w.
Moore, Wm. Cabell, The Wyoming.
Moran, John Francis, *A. B.*, 2426 Pennsylvania avenue, n. w.
Morgan, Edwin Lee, The Plaza.
Morgan, Francis Patterson, *A. B.*, 3915 Huntingdon street, Chevy Chase Heights.
Morgan, James Dudley, *A. B.*, 919 15th street, n. w.
Morgan, Wm. Gerry, *A. B.*, The Rochambeau.
Morhart, Frederick H., 1324 9th street, n. w.
Morris, George Gideon, The Laclede.
Morse, Edwin Emery, 1539 I street, n. w.
Motter, Murray Galt, *A. M., B. S.*, 2314 19th street, n. w.
Moulden, Wm. Raymond, Potomac Bank Building.
Mudd, T. D., 1337 Good Hope Road.
Mulcahy, Daniel Dominick, *Phar. D.*, 1216 North Capitol street.
Muncaster, Otho Magruder, The Rochambeau.
Muncaster, Steuart Brown, 907 16th street, n. w.
Mundell, Joseph Joshua, 8 Maple View Place, Anacostia.
Murphy, Joseph Alexander, 943 L street, n. w.
Murphy, Walter C., 507 4th street, n. w.
Murray, Thomas Morris, 2107 Massachusetts avenue, n. w.
Musgrave, Percy, 6 Dupont Circle, n. w.
Neall, J. H., 243 South Boulevard, Atlanta, Ga.
Neff, Wallace, *A. M.*, 930 16th street, n. w.
Neill, Thos. E., 1213 Connecticut avenue, n. w.
Nevitt, James Ramsay, 1820 Calvert street, n. w.
Newell, William Sawyer, The Champlain.
Newgarden, George J., *A. M.*, 1633 Mass. avenue, n. w.
Nichols, John Benjamin, 1321 Rhode Island avenue, n. w.
Norcross, Alfred C., 819 Taylor street, Petworth.
Norris, Phebe Russell, *B. E.*, 1109 14th street, n. w.
Ober, George Clarke, 125 B street, s. e.
O'Donoghue, John Alphonso, *A. M.*, 3311 N street, n. w.

O'Malley, Mary, St. Elizabeth Asylum.
Ong, Harry A., 1768 Columbia Road.
Owen, Wm. Otway, Southern Building.
Owens, Samuel Logan, The Plaza.
Parker, Edward Mason, 1716 M street, n. w.
Parker, Henry Pickering, *A. B.*, 1518 Connecticut avenue, n. w.
Parsons, Alfred Vandiver, Takoma Park, D. C., Carroll and Maple avenues.
Parsons, Mary Almera, 937 New York avenue.
Perkins, Wm. Robert, *Phar. D.*, 1332 15th street, n. w.
Perry, George Nelson, 1316 Q street, n. w.
Petteys, Charles Volney, 1211 Clifton street, n. w.
Pfender, Chas. A., 304 Rhode Island avenue, n. w.
Philes, Wm. E., 1203 Girard street, n. w.
Phillips, Wm. Fowke Ravenel, Mobile, Ala.
Pickford, Edward F., *A. B.*, 422 8th street, s. e.
Pile, Mayne Marshall, 15th and U streets, n. w.
Pole, Samuel Boyce, 216 8th street, n. e.
Polkinhorn, Henry Alexander, 1201 M street, n. w.
Pool, Benjamin George, 945 Rhode Island avenue, n. w.
Poole, Thos. A., The Farragut.
Portman, Adeline Elwell, *A. M.*, Chevy Chase, Md.
Poulton, Wm. E., 227 4½ street, s. w.
Prentiss, Daniel Webster, *B. S.*, 1213 M street, n. w.
Price, Harry M., 819 11th street, n. w.
Price, Malvern H., 406 H street, n. e.
Prosperi, Milton Hickox, 216 8th street, s. e.
Pyles, R. A., 115 Nichols avenue, Anacostia.
Ramsburgh, Jesse Houck, *A. M.*, The Portner.
Randolph, Buckner Magill, The Toronto.
Ransdell, Robert C., 130 B street, n. e.
Ray, Anthony Moreland, 4800 Wisconsin avenue, n. w.
Reede, Edward Hiram, 419 M street, n. w.
Reeve, Jesse Newman, 926 Farragut Square.
Reeves, William Pinkney, The Congressional.
Reichelderfer, Luther Halsey, 1721 Connecticut avenue, n. w.
Reid, Eva Charlotte, St. Elizabeth.
Reisinger, Emory Wm., 1228 16th street, n. w.
Rench, Victor B., 1300 Rhode Island avenue, n. w.
Repetti, Frederick Francis, 149 B street, s. e.
Repetti, John Joseph, 404 Seward Square, s. e.
Rhett, Henry John, *A. B.*, 2010 Hillyer Place, n. w.
Richards, Alfred, The Seward.
Richardson, Charles Williamson, 1317 Conn. avenue, n. w.
Richardson, Edward Elliott, *M. S.*, 404 7th street, s. w.
Richardson, James Julius, 1509 16th street, n. w.
Richey, Stephen Olin, 732 17th street, n. w.
Riggles, John Lewis, The Champlain.
Rives, Wm. C., 1702 Rhode Island avenue, n. w.
Robins, William Littleton, The Rochambeau.
Rogers, Joseph Decatur, 1400 M street, n. w.
Roman, Frederick Ogle, 1337 R street, n. w.
Rossiter, Thos. J., 820 D street, s. e.
Roy, Philip Seddon, 1200 Massachusetts avenue, n. w.
Ruble, W. A., 2 Iowa Circle.
Ruedy, Robert Conrad, 625 Maryland avenue, n. e.
Ruffin, George Mendenhall, 1101 14th street, n. w.
Ruffin, Sterling, 1335 Connecticut avenue, n. w.
Saffold, Guy Stark, 1760 T street, n. w.
Samson, George C., 2423 Pennsylvania Avenue, n. w.

Savage, Linnaeus Samuel, Bennings, D. C.
Sawtelle, Henry Fenno, 3001 11th street, n. w.
Schaeffer, Edward Martin, 1808 G street, n. w.
Schneider, Elwin C., 1742 U street, n. w.
Schneider, Francis Alphonse, The Cecil.
Schoonover, Robert A., Bennings.
Schreiber, H. R., 657 H street, n. e.
Scott, James Foster, *A. B.*, The Albemarle.
Seibert, Edward Grant, *Phar. G.*, 916 14th street, n. w.
Sellhausen, Ernest August, 640 G street, n. w.
Sellhausen, Harry A., 640 G Street, n. w.
Sessford, Joseph S. F., 1738 F street, n. w.
Shands, Aurelius Rives, 901 16th street, n. w.
Shaw, John Watson, 1453 Rhode Island avenue, n. w.
Shoup, Jesse, The Roland.
Shute, Daniel Kerfoot, *A. B.*, 1719 De Sales street, n. w.
Sillers, Robert Fry, 313 H street, n. w.
Simpson, Chas. August, 1217 Connecticut avenue, n. w.
Simpson, John Crayke, 1421 Massachusetts avenue, n. w.
Sisco, H. W., 2 Iowa Circle.
Skinner, J. O., Columbia Hospital.
Smart, Benjamin Horace, 3d and Rhode Island ave., n. w.
Smith, Dwight Gordon, *A. B.*, 1421 Columbia Road.
Smith, J. A., York, N. D.
Smith, P. G., Tuberculosis Hospital.
Smith, Stephen Harrison, The Burlington.
Smith, Thomas Croggon, 1133 12th street, n. w.
Smith, Thos. Francis, 420 2d street, n. w.
Snowden, Edgar, 1900 S street, n. w.
Snyder, Arthur Augustine, 1126 16th street, n. w.
Sohon, Elizabeth, 512 I street, n. w.
Sohon, Frederick, 512 I street, n. w.
Sorrel, George R., 616 F street, s. w.
Sothoron, Elmer Hezekiah, *B. E.*, 1921 I street, n. w.
Sowers, Wm. F. M., 1707 Massachusetts avenue, n. w.
Sowers, Zachariah Turner, *A. M., Ph. B.*, 1707 Massachusetts avenue, n. w.
Spencer, J. Blair, 1344 19th street, n. w.
Sprigg, William Mercer, The Rochambeau.
Squire, Susan Johnson, 3445 Wayne avenue, Kansas City, Mo.
St. Clair, Francis Alphonzo, *Phar. D.*, 1319 T street, n. w.
Staples, Aubrey Horatio, 1739 S street, n. w.
Stavely, Albert Livingston, *A. M.*, 1744 M street, n. w.
Steltz, Peter Henry, Jr., 611 North Carolina avenue, s. e.
Stewart, John W., 1202 K street, n. w.
Stone, Charles Granville, 5756 Georgia avenue, n. w.
Stone, Isaac Scott, Stoneleigh Court.
Stone, James H., 1100 Irving street, n. w.
Stout, Henry I., 1416 9th street, n. w.
Stoutenburgh, John Albertson, 116 2d street, s. e.
Street, Daniel Baen, The Kenesaw.
Strickler, Melchior B., 815 M street, n. w.
Strobel, Mary Louise, 16 R street, n. w.
Stromberger, Henry Holliday, 1745 North Capitol street.
Stuart, Albert Rhett, *A. M.*, 7 Dupont Circle.
Stuart, James, *A. B.*, 1315 12th street, n. w.
Suddarth, James Littleton, 817 North Capitol street.
Sullivan, Robt. Young, The Burlington.
Sullivan, T. J., 512 6th street, s. w.
Suter, Henderson, 3026 N street, n. w.

Suter, W. Given, 27 H street, n. w.
Sutherin, John Wesley, 1331 Vermont avenue, n. w.
Swain, O. A. T., Athol, Mass.
Syme, Wm. Henry, The Laclede.
Talbott, John Allan, 1918 I street, n. w.
Tappan, Joseph Clarence, 1931 North Capitol street.
Tastet, David W., 3719 Georgia avenue, n. w.
Tayler-Jones, Louise, *M. S.*, 1217 Connecticut avenue, n. w.
Taylor, Lewis Harvie, The Cecil.
Terry, P. R., 103 Rhode Island avenue, n. w.
Thomas, Ada Rebecca, The Thomas.
Thomas, John Daniel, *A. B.*, 1716 M street, n. w.
Thomas, Wm. J. G., 2905 14th street, n. w.
Thompson, Edgar Dorman, *A. M.*, 1247 North Capitol street.
Thompson, Joseph Ford, Cosmos Club.
Thompson, J. Lawn, 1112 New York avenue, n. w.
Thompson, Millard Fillmore, *D. D. S.*, 484 Md. ave., s. w.
Thomson, Lewis B., 3423 16th street, n. w.
Thönssen, Wm. Julius Reichmann, 315 C street, s. e.
Tibbits, Albert Perkins, 1616 I street, n. w.
Titus, Elijah White, 1219 Connecticut avenue, n. w.
Tobias, Henry Wood, *B. E.*, 1424 Q street, n. w.
Tobin, Richard F., 123 11th street, s. e.
Tompkins, Edmund Lee, Fine Creek Mills, Va.
Toner, John Edmund, *Phar. D.*, 214 14th street, n. e.
Trimble, Robert S., 722 18th street, n. w.
Tubman, James Richard, 1750 Park Road, n. w.
Tucker, Wm. Peyton, St. Joseph, Mo.
Upham, W. C., 128 Maryland avenue, s. w.
Vale, Frank Palmer, The Octavia.
Valentine, Aloysius W., 606 North Carolina avenue, s. e.
Van Rensselaer, John, *A. M.*, The Rochambeau.
Vaughan, George Tully, 1718 I street, n. w.
Verbrycke, J. Russell, Jr., 2307 1st street, n. w.
Vincent, Thomas Norris, *A. M.*, The Mansfield.
Wagner, Wm. F., *Phar. G.*, 501 L street, n. w.
Walker, Allen, 2408 18th street, n. w.
Walker, Lewis A., 622 New Jersey avenue, n. w.
Walker, Reginald Redford, 1710 H street, n. w.
Wall, Joseph Stiles, 2017 Columbia Road.
Walsh, Ferdinand Claiborne, Moore Bldg., San Antonio, Tex.
Walsh, John Edgar, 202 East Capitol street.
Walsh, Ralph, 1807 H street, n. w.
Walter, William Francis, *A. M.*, 487 H street, s. w.
Warren, George Walter, 1212 H street, n. e.
Waters, Charles L., 1414 Q street, n. w.
Watkins, Edgar Wm., 1373 Columbia Road, n. w.
Watkins, Samuel Evans, 1115 O street, n. w.
Watson, James A., 210 Nichols avenue, Anacostia.
Weaver, Clarence Arlington, 1614 Q street, n. w.
Webb, Newton E., 1314 East Capitol street.
Wellington, John Ryder, *A. M.*, 1723 Connecticut avenue, n. w.
Wells, Walter Augustine, The Rochambeau.
Werber, Gustavus, *A. M.*, 1353 Q street, n. w.
West, Richard Thomas, 2519 14th street, n. w.
Wharton, John J., The Northumberland.
Wheatley, Charles, 12th street and Mass. avenue, n. w.
White, Charles Stanley, 911 16th street, n. w.
Whitson, Wm. E., 929 M street, n. w.
Wilkinson, Oscar, 1408 L street, n. w.

Wilkinson, Walter Watkins, The Rochambeau.
Williams, Tom A., 1758 K street, n. w.
Williams, Welton C., 911 Massachusetts avenue, n. w.
Willson, Prentiss, The Toronto.
Wilmer, William Holland, 1610 I street, n. w.
Winter, Eugene Chas. Curtis, *Phar. D.*, 815 4½ street, s. w.
Wood, George Wm., The Nottingham.
Woodman, Francis J., 634 A street, n. e.
Woodward, Wm. Creighton, *LL. M.*, 1766 Lanier street, n. w.
Wright, Hamilton K., 1215 19th street, n. w.
Wynkoop, James C., 1629 14th street, n. w.
Yarnall, John Hepburn, 3028 P street, n. w.
Yarrow, Henry Crècy, 926 17th street, n. w.
Yates, Frederick, *LL. M.*, 1230 9th street, n. w.
Young, Wm. Glenn, 1737 H street, n. w.

Honorary Members.

1895—Ashby, Thomas A., 1125 Madison avenue, Balto., Md.
1875—Billings, John S., Surgeon, U. S. A., retired, 476 5th avenue, New York City.
1896—Fletcher, Robert, Army Medical Library, Washington, D. C.
1900—Jacobi, Abraham, 19 East 47th street, New York City.
1905—Keen, W. W., 1719 Chestnut street, Philadelphia, Pa.
1905—Musser, W. H., 1927 Chestnut street, Philadelphia, Pa.
1895—Osler, William, Oxford, England.
1895—Palmer, W. H., Providence, R. I.
1895—Shattuck, Frederick C., 135 Marlboro street, Boston, Mass.
1895—Sternberg, George M., Surgeon-General, U. S. A., ret., 2005 Massachusetts avenue, n. w., Washington, D. C.

